L Number	Hits	Search Text	DB	Time stamp
1	301474	cellulose	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:13
2	39795	cellulose and cross ADJ link$	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:13
3	1926	(cellulose and cross ADJ link$) and chiral	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:13
4	1190	((cellulose and cross ADJ link$) and chiral) and support	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:13
5	1043	(((cellulose and cross ADJ link$) and chiral) and support) and alkyl	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:14
6	1016	((((cellulose and cross ADJ link$) and chiral) and support) and alkyl) and process	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:14
7	524	(((((cellulose and cross ADJ link$) and chiral) and support) and alkyl) and process) and silyl$	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:23
8	2	"9627639"	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:26
9	0	"9627639" and chiral	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:25
10	2	"9627615"	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:28
11	13	"4737488"	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:30
12	2040975	compound	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:30
13	30740	compound and chiral	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:31
14	7362	(compound and chiral) and support	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:31
16	2182	((compound and chiral) and support) and (silyl$ or hydrosilyl$)	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:32
17	1888	(((compound and chiral) and support) and (silyl$ or hydrosilyl$)) and chromatog$	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:32

18	1887	((((compound and chiral) and support) and (silyl$ or hydrosilyl$)) and chromatog$) and (synthe$ or proces or method)	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:33
19	1887	((((compound and chiral) and support) and (silyl$ or hydrosilyl$)) and chromatog$) and (synthe$ or process or method)	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:33
20	668	(((((compound and chiral) and support) and (silyl$ or hydrosilyl$)) and chromatog$) and (synthe$ or process or method)) and cross ADJ link$	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:39
21	2082	536/22.1	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:40
22	511	536/22.1 and cross ADJ link$	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:40
23	62	(536/22.1 and cross ADJ link$) and chiral	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:41
24	1010	536/53	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:41
25	46	536/53 and chiral	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:41
26	11	(536/53 and chiral) and cross ADJ link$	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:43
27	295	polysacharide	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:43
28	63397	polysaccharide	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:43
29	15080	polysaccharide and cross ADJ link$	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:43
30	777	(polysaccharide and cross ADJ link$) and chiral	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:44
33	371	((((polysaccharide and cross ADJ link$) and chiral) and support$) and chromatog$) and (silyl$ or hydrosilyl$)	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:50
34	457	514/42	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:50
36	6	(514/42 and chiral) and cross ADJ link$	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:50
35	54	514/42 and chiral	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:51

32	642	(((polysaccharide and cross ADJ link$) and chiral) and support$) and chromatog$	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:59
37	366	562/471	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 10:59
38	27	562/471 and chiral	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 11:01
39	2	(562/471 and chiral) and cross ADJ link$	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 11:01
31	663	((polysaccharide and cross ADJ link$) and chiral) and support$	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 11:07
40	2	"9627639"	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 11:08
41	10	"5354852"	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 11:11
42	0	"5354852" and cross ADJ link$	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 11:11
43	5	"5354852" and chiral	USPAT; US-PGPUB; EPO; DERWENT	2003/11/11 11:12

Inventor Search


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L1            95 SEA FILE=HCAPLUS ABB=ON  PLU=ON  DUVAL R?/AU
L2            15 SEA FILE=HCAPLUS ABB=ON  PLU=ON  LEVEQUE H?/AU
L3           102 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2)
L4            16 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3 AND CHIRAL
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                 OR 68374-35-6/BI OR 7021-09-2/BI OR 7585-39-9/BI OR 7631-86-9/B
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                 /BI OR 9057-02-7/BI OR 9063-63-2/BI OR 92880-82-5/BI OR
                 98-59-9/BI OR 998-30-1/BI)
L9             1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7 AND L6
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1 patent w/ 48 cpds displayed

=> d ibib abs hitstr ind

L69 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:369012 HCAPLUS
DOCUMENT NUMBER: 136:379289
TITLE: Chloro-, hydroxy- and alkoxysilane derivatives of polysaccharides or oligosaccharides, polymerizable and **cross-linkable**, their synthesis and their use as sources of novel support materials
INVENTOR(S): **Duval, Raphael**
PATENT ASSIGNEE(S): Institut Francais du Petrole, Fr.; Chiralsep
SOURCE: U.S. Pat. Appl. Publ., 19 pp., Cont.-in-part of U.S. Ser. No. 394,868.
CODEN: USXXCO
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

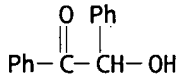
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002058763	A1	20020516	US 2001-808190	20010315
US 6514407	B2	20030204		
FR 2784109	A1	20000407	FR 1998-11377	19980911
US 6346616	B1	20020212	US 1999-394868	19990913

PRIORITY APPLN. INFO.: FR 1998-11377 A 19980911
US 1999-394868 A2 19990913

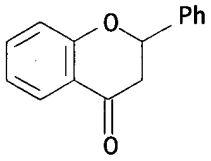
AB There are described chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides as novel compds. which are polymerizable and **cross-linkable**, and a method for obtaining them; novel support materials obtained from said derivs. and contg. said silane derivs. of polysaccharides or oligosaccharides chem. grafted by a covalent bond with the support and polymd. and **cross-linked** in a three-dimensional network and a method for obtaining them; as well as the use of said material supports in sepn. or in prepn. of enantiomers, through employment in gaseous, liq. or supercrit. chromatog., by electrophoresis, electrochromatog. or by percolation processes through membranes contg. said support materials.

IT **119-53-9**, Benzoin **487-26-3**, Flavanone **1439-07-2**, Trans-Stilbene oxide **3966-32-3**, (R)-.alpha.-Methoxyphenyl acetic acid **5928-66-5**, (R)-Benzoin **5928-67-6**, (S)-Benzoin **7021-09-2**, .alpha.-Methoxyphenyl acetic acid **13523-86-9**, Pindolol **17002-31-2**, (-)-Flavanone **25144-18-7**, (+)-Trans-Stilbene oxide **26164-26-1**, (S)-.alpha.-Methoxyphenyl acetic acid **26328-11-0**, (S)-Pindolol **27439-12-9**, (+)-Flavanone **40102-60-1**, (-)-Trans-Stilbene oxide **68374-35-6**, (R)-Pindolol
RL: ANT (Analyte); ANST (Analytical study)
(chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and **cross-linkable**, synthesis and use as sources of novel support materials in **chiral** sepn.)

RN 119-53-9 HCAPLUS
CN Ethanone, 2-hydroxy-1,2-diphenyl- (9CI) (CA INDEX NAME)

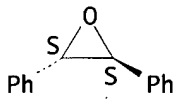


RN 487-26-3 HCAPLUS
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-2-phenyl- (9CI) (CA INDEX NAME)



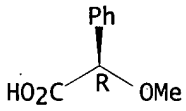
RN 1439-07-2 HCAPLUS
CN Oxirane, 2,3-diphenyl-, (2R,3R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



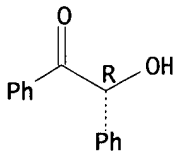
RN 3966-32-3 HCAPLUS
CN Benzeneacetic acid, .alpha.-methoxy-, (.alpha.R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



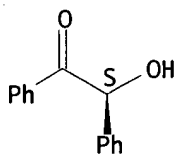
RN 5928-66-5 HCAPLUS
CN Ethanone, 2-hydroxy-1,2-diphenyl-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

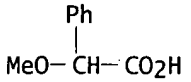


RN 5928-67-6 HCAPLUS
CN Ethanone, 2-hydroxy-1,2-diphenyl-, (2S)- (9CI) (CA INDEX NAME)

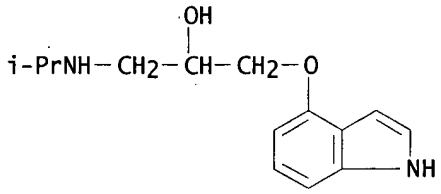
Absolute stereochemistry. Rotation (+).



RN 7021-09-2 HCAPLUS
CN Benzeneacetic acid, .alpha.-methoxy- (9CI) (CA INDEX NAME)

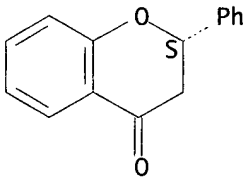


RN 13523-86-9 HCAPLUS
CN 2-Propanol, 1-(1H-indol-4-yloxy)-3-[(1-methylethyl)amino]- (9CI) (CA INDEX NAME)



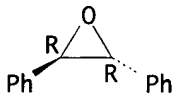
RN 17002-31-2 HCAPLUS
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-2-phenyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



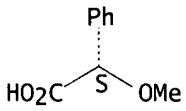
RN 25144-18-7 HCAPLUS
CN Oxirane, 2,3-diphenyl-, (2R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



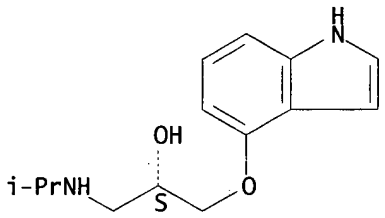
RN 26164-26-1 HCAPLUS
CN Benzeneacetic acid, .alpha.-methoxy-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



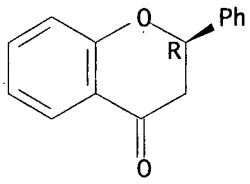
RN 26328-11-0 HCAPLUS
CN 2-Propanol, 1-(1H-indol-4-yloxy)-3-[(1-methylethyl)amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



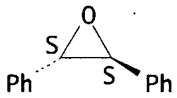
RN 27439-12-9 HCAPLUS
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-2-phenyl-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



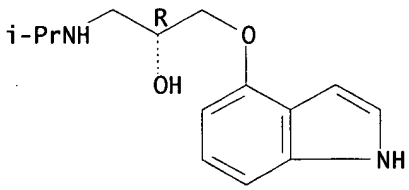
RN 40102-60-1 HCAPLUS
CN Oxirane, 2,3-diphenyl-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



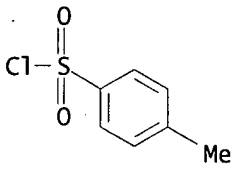
RN 68374-35-6 HCAPLUS
CN 2-Propanol, 1-(1H-indol-4-yloxy)-3-[(1-methylethyl)amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

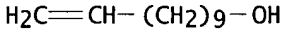


IT **98-59-9**, 4-Methylbenzene sulfonyl chloride **112-43-6**, 10-Undecen-1-ol **120-47-8**, Ethyl 4-hydroxybenzoate **4420-74-0**, 3-Mercaptopropyltrimethoxysilane **38460-95-6**, 10-Undecenoyl chloride **54132-75-1**, 3,5-Dimethylphenyl isocyanate
RL: RCT (Reactant); RACT (Reactant or reagent)
(chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and **cross-linkable**, synthesis and use as sources of novel support materials in **chiral** sepn.)

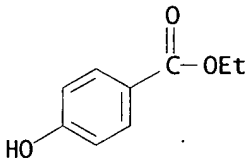
RN 98-59-9 HCAPLUS
CN Benzenesulfonyl chloride, 4-methyl- (9CI) (CA INDEX NAME)



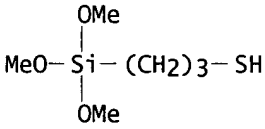
RN 112-43-6 HCAPLUS
CN 10-Undecen-1-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



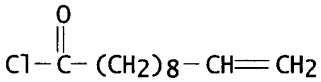
RN 120-47-8 HCAPLUS
CN Benzoic acid, 4-hydroxy-, ethyl ester (9CI) (CA INDEX NAME)



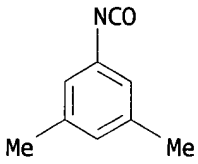
RN 4420-74-0 HCAPLUS
CN 1-Propanethiol, 3-(trimethoxysilyl)- (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 38460-95-6 HCAPLUS
CN 10-Undecenoyl chloride (6CI, 7CI, 9CI) (CA INDEX NAME)

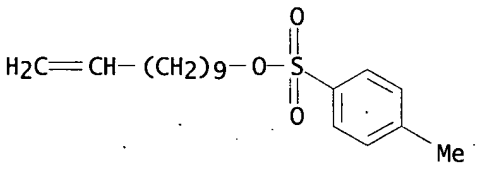


RN 54132-75-1 HCAPLUS
CN Benzene, 1-isocyanato-3,5-dimethyl- (9CI) (CA INDEX NAME)

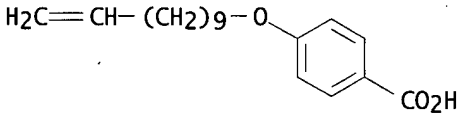


IT **51148-67-5P 59100-95-7P**, 4-(10-Undecenyloxy)benzoic acid
123598-41-4P, Ethyl 4-(10-undecenyloxy) benzoate
130747-08-9P, 4-(10-Undecenyloxy)benzoyl chloride
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and **cross-linkable**, synthesis and use as sources of novel support materials in **chiral** sepn.)

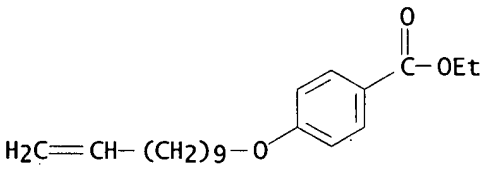
RN 51148-67-5 HCAPLUS
CN 10-Undecen-1-ol, 4-methylbenzenesulfonate (9CI) (CA INDEX NAME)



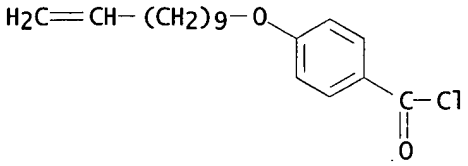
RN 59100-95-7 HCAPLUS
CN Benzoic acid, 4-(10-undecenyloxy)- (9CI) (CA INDEX NAME)



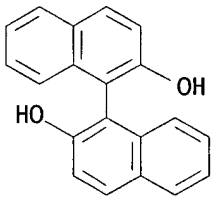
RN 123598-41-4 HCAPLUS
CN Benzoic acid, 4-(10-undecenyloxy)-, ethyl ester (9CI) (CA INDEX NAME)



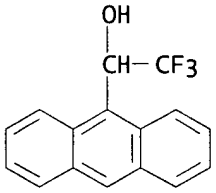
RN 130747-08-9 HCAPLUS
CN Benzoyl chloride, 4-(10-undecenyloxy)- (9CI) (CA INDEX NAME)



IT **602-09-5P**, [1,1'-Binaphthalene]-2,2'-diol **65487-67-4P**, 9-Anthracenemethanol, ..alpha..-(trifluoromethyl)-
RL: PUR (Purification or recovery); PREP (Preparation)
(enantiomeric sepn. of; chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and **cross-linkable**, synthesis and use as sources of novel support materials in **chiral** sepn.)
RN 602-09-5 HCAPLUS
CN [1,1'-Binaphthalene]-2,2'-diol (8CI, 9CI) (CA INDEX NAME)



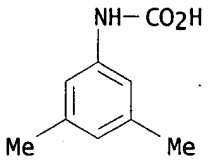
RN 65487-67-4 HCAPLUS
CN 9-Anthracenemethanol, .alpha.-(trifluoromethyl)- (9CI) (CA INDEX NAME)



IT **170211-41-3P**, Cellulose, (3,5-dimethylphenyl)carbamate 10-undecenoate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and functionalization of; chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and **cross-linkable**, synthesis and use as sources of novel support materials in **chiral** sepn.)
RN 170211-41-3 HCAPLUS
CN Cellulose, (3,5-dimethylphenyl)carbamate 10-undecenoate (9CI) (CA INDEX NAME)

CM 1

CRN 161859-22-9
CMF C9 H11 N O2



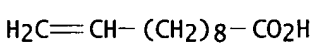
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

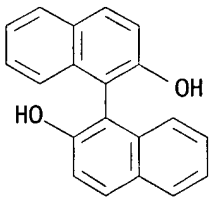
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

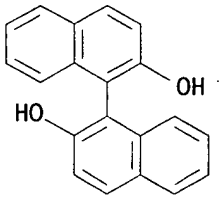
CRN 112-38-9
CMF C11 H20 O2



IT **18531-94-7P**, [1,1'-Binaphthalene]-2,2'-diol, (1R)-
18531-99-2P, [1,1'-Binaphthalene]-2,2'-diol, (1S)-
53531-34-3P, 9-Anthracenemethanol, .alpha.-(trifluoromethyl)-, (.alpha.R)- **60646-30-2P**, 9-Anthracenemethanol, ..alpha..-(trifluoromethyl)-, (S)-
RL: PUR (Purification or recovery); PREP (Preparation)
(sepn. of, from racemic mixts.; chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and **cross-linkable**, synthesis and use as sources of novel support materials in **chiral** sepn.)
RN 18531-94-7 HCAPLUS
CN [1,1'-Binaphthalene]-2,2'-diol, (1R)- (9CI) (CA INDEX NAME)

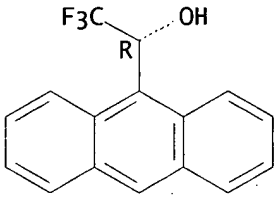


RN 18531-99-2 HCAPLUS
CN [1,1'-Binaphthalene]-2,2'-diol, (1S)- (9CI) (CA INDEX NAME)



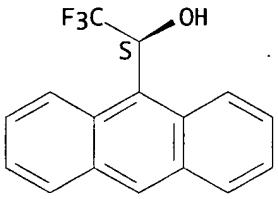
RN 53531-34-3 HCAPLUS
CN 9-Anthracenemethanol, .alpha.-(trifluoromethyl)-, (.alpha.R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 60646-30-2 HCAPLUS
CN 9-Anthracenemethanol, .alpha.-(trifluoromethyl)-, (.alpha.S)- (9CI) (CA INDEX NAME)

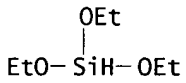
Absolute stereochemistry. Rotation (+).



IT **998-30-1DP**, Triethoxysilane, reaction products with silica and cellulose (dimethylphenyl)carbamate undecenoate **7585-39-9DP**, .beta.-Cyclodextrin, derivs., reaction products with silica and functionalized silanes **7631-86-9DP**, Silica, reaction products with functionalized silanes and cellulose (dimethylphenyl)carbamate undecenoate **9004-34-6DP**, Cellulose, derivs., reaction products with silica and functionalized silanes **9004-54-0DP**, Dextran, derivs., reaction products with silica and functionalized silanes **9005-80-5DP**, Inulin, derivs., reaction products with silica and functionalized silanes **9012-76-4DP**, Chitosan, derivs., reaction products with silica and functionalized silanes **9051-95-0DP**, .alpha.-1,3-Glucan, derivs., reaction products with silica and functionalized silanes **9051-97-2DP**, .beta.-D-Glucan, (1.fwdarw.3)-, derivs., reaction products with silica and functionalized silanes **9051-99-4DP**, .beta.-1,2-Glucan, derivs., reaction products with silica and functionalized silanes **9052-06-6DP**, .beta.-D-Mannan, (1.fwdarw.4)-, derivs., reaction products with silica and functionalized silanes **9057-02-7DP**, Pullulan, derivs., reaction products with silica and functionalized silanes **9063-63-2DP**, .beta.-D-Xylan, (1.fwdarw.4)-, derivs., reaction products with silica and

functionalized silanes **10025-78-2DP**, Trichlorosilane, reaction products with silica and cellulose (dimethylphenyl)carbamate undecenoate **54724-00-4DP**, Curdlan, derivs., reaction products with silica and functionalized silanes **92880-82-5DP**, .beta.-D-Fructan, (2.fwdarw.1)-, derivs., reaction products with silica and functionalized silanes **170211-41-3DP**, Cellulose, (3,5-dimethylphenyl)carbamate 10-undecenoate, reaction products with silica and functionalized silanes
RL: NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(supports; chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and **cross-linkable**, synthesis and use as sources of novel support materials in **chiral** sepn.)

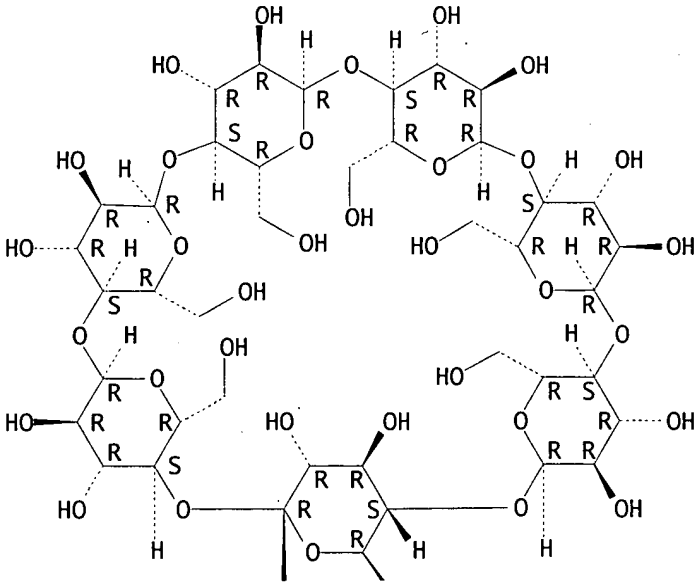
RN 998-30-1 HCAPLUS
CN Silane, triethoxy- (6CI, 8CI, 9CI) (CA INDEX NAME)



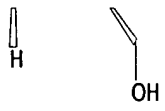
RN 7585-39-9 HCAPLUS
CN .beta.-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

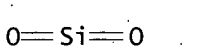
PAGE 1-A



PAGE 2-A



RN 7631-86-9 HCAPLUS
CN Silica (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 9004-34-6 HCAPLUS
CN Cellulose (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9004-54-0 HCAPLUS
CN Dextran (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-80-5 HCAPLUS
CN Inulin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9012-76-4 HCAPLUS
CN Chitosan (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9051-95-0 HCAPLUS
CN .alpha.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

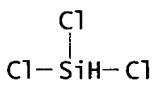
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9051-99-4 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.2)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9052-06-6 HCAPLUS
CN .beta.-D-Mannan, (1.fwdarw.4)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9057-02-7 HCAPLUS
CN Pullulan (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9063-63-2 HCAPLUS
CN .beta.-D-Xylan, (1.fwdarw.4)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 10025-78-2 HCAPLUS
CN Silane, trichloro- (8CI, 9CI) (CA INDEX NAME)



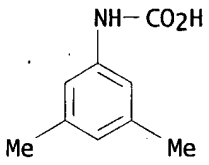
RN 54724-00-4 HCAPLUS
CN Curdlan (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 92880-82-5 HCAPLUS
CN .beta.-D-Fructan, (2.fwdarw.1)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 170211-41-3 HCAPLUS
CN Cellulose, (3,5-dimethylphenyl)carbamate 10-undecenoate (9CI) (CA INDEX NAME)

CM 1

CRN 161859-22-9
CMF C9 H11 N O2



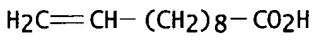
CM 2

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 112-38-9
CMF C11 H20 O2



IC ICM C07H001-00
NCL 526123100
CC 80-3 (Organic Analytical Chemistry)
Section cross-reference(s): 43
ST chloro hydroxy alkoxysilane deriv polysaccharide oligosaccharide polymerizable stationary phase; silane functionalized polysaccharide **chiral** sepn; cellulose deriv silane functionalized **chiral** support
IT Chromatographic stationary phases
HPLC
Silylation
(chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and **cross-linkable**, synthesis and use as sources of novel support materials in **chiral** sepn.)
IT Oligosaccharides, reactions
Polysaccharides, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or

oligosaccharides, polymerizable and **cross-linkable**, synthesis and use as sources of novel support materials in **chiral** sepn.)

IT **119-53-9**, Benzoin **487-26-3**, Flavanone **1439-07-2**, Trans-Stilbene oxide **3966-32-3**, (R)-.alpha.-Methoxyphenyl acetic acid **5928-66-5**, (R)-Benzoin **5928-67-6**, (S)-Benzoin **7021-09-2**, .alpha.-Methoxyphenyl acetic acid **13523-86-9**, Pindolol **17002-31-2**, (-)-Flavanone **25144-18-7**, (+)-Trans-Stilbene oxide **26164-26-1**, (S)-.alpha.-Methoxyphenyl acetic acid **26328-11-0**, (S)-Pindolol **27439-12-9**, (+)-Flavanone **40102-60-1**, (-)-Trans-Stilbene oxide **68374-35-6**, (R)-Pindolol
RL: ANT (Analyte); ANST (Analytical study)
(chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and **cross-linkable**, synthesis and use as sources of novel support materials in **chiral** sepn.)

IT **98-59-9**, 4-Methylbenzene sulfonyl chloride **112-43-6**, 10-Undecen-1-ol **120-47-8**, Ethyl 4-hydroxybenzoate **4420-74-0**, 3-Mercaptopropyltrimethoxysilane **38460-95-6**, 10-Undecenoyl chloride **54132-75-1**, 3,5-Dimethylphenyl isocyanate
RL: RCT (Reactant); RACT (Reactant or reagent)
(chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and **cross-linkable**, synthesis and use as sources of novel support materials in **chiral** sepn.)

IT **51148-67-5P 59100-95-7P**, 4-(10-Undecenyloxy)benzoic acid **123598-41-4P**, Ethyl 4-(10-undecenyloxy) benzoate **130747-08-9P**, 4-(10-Undecenyloxy)benzoyl chloride
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and **cross-linkable**, synthesis and use as sources of novel support materials in **chiral** sepn.)

IT **602-09-5P**, [1,1'-Binaphthalene]-2,2'-diol **65487-67-4P**, 9-Anthracenemethanol, ..alpha..-(trifluoromethyl)-
RL: PUR (Purification or recovery); PREP (Preparation)
(enantiomeric sepn. of; chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and **cross-linkable**, synthesis and use as sources of novel support materials in **chiral** sepn.)

IT **170211-41-3P**, Cellulose, (3,5-dimethylphenyl)carbamate 10-undecenoate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and functionalization of; chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and **cross-linkable**, synthesis and use as sources of novel support materials in **chiral** sepn.)

IT **18531-94-7P**, [1,1'-Binaphthalene]-2,2'-diol, (1R)- **18531-99-2P**, [1,1'-Binaphthalene]-2,2'-diol, (1S)- **53531-34-3P**, 9-Anthracenemethanol, .alpha.-(trifluoromethyl)-, (.alpha.R)- **60646-30-2P**, 9-Anthracenemethanol, ..alpha..-(trifluoromethyl)-, (S)-
RL: PUR (Purification or recovery); PREP (Preparation)
(sepn. of, from racemic mixts.; chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and **cross-linkable**, synthesis and use as sources of novel support materials in **chiral** sepn.)

IT **998-30-1DP**, Triethoxysilane, reaction products with silica and cellulose (dimethylphenyl)carbamate undecenoate **7585-39-9DP**, .beta.-Cyclodextrin, derivs., reaction products with silica and functionalized silanes **7631-86-9DP**, Silica, reaction products with functionalized silanes and cellulose (dimethylphenyl)carbamate undecenoate **9004-34-6DP**, Cellulose, derivs., reaction products with silica and functionalized silanes **9004-54-0DP**, Dextran, derivs., reaction products with silica and functionalized silanes **9005-80-5DP**, Inulin, derivs., reaction products with silica and functionalized silanes **9012-76-4DP**, Chitosan, derivs., reaction products with silica and functionalized silanes **9051-95-0DP**, .alpha.-1,3-Glucan, derivs., reaction products with silica and functionalized silanes **9051-97-2DP**, .beta.-D-Glucan, (1.fwdarw.3)-, derivs., reaction products with silica and functionalized silanes **9051-99-4DP**, .beta.-1,2-Glucan, derivs., reaction products with silica and functionalized silanes **9052-06-6DP**, .beta.-D-Mannan, (1.fwdarw.4)-, derivs., reaction products with silica and functionalized silanes **9057-02-7DP**, Pullulan, derivs., reaction products with silica and functionalized silanes **9063-63-2DP**, .beta.-D-Xylan, (1.fwdarw.4)-, derivs., reaction products with silica and functionalized silanes **10025-78-2DP**, Trichlorosilane, reaction products with silica and cellulose (dimethylphenyl)carbamate undecenoate **54724-00-4DP**, Curdlan, derivs., reaction products with silica and functionalized silanes **92880-82-5DP**, .beta.-D-Fructan, (2.fwdarw.1)-, derivs., reaction products with silica and functionalized silanes **170211-41-3DP**, Cellulose, (3,5-dimethylphenyl)carbamate 10-undecenoate, reaction products with silica and functionalized silanes
RL: NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(supports; chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and **cross-linkable**, synthesis and use as sources of novel support materials in **chiral** sepn.)

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L2            15 SEA FILE=HCAPLUS ABB=ON  PLU=ON  LEVEQUE H?/AU
L3           102 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L1 OR L2)
L4            16 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3 AND CHIRAL
L5             7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L4 AND PATENT/DT
L10            9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L4 NOT L5
L11           35 SEA FILE=REGISTRY ABB=ON  PLU=ON  (100-46-9/BI OR 103-67-3/BI
                 OR 19131-99-8/BI OR 354150-79-1/BI OR 3886-69-9/BI OR 5933-40-4
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                 97-90-5/BI OR 98-85-1/BI OR 99388-22-4/BI)
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5 citations of 35 specs displayed

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L12 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:379737 HCAPLUS
DOCUMENT NUMBER: 137:384607
TITLE: Enantiopure beads: a tool for asymmetric heterogeneous catalysis
AUTHOR(S): Herault, Damien; Saluzzo, Christine; **Duval, Raphael**; Lemaire, Marc
CORPORATE SOURCE: Laboratoire de Catalyse et Synthese Organique, CPE, UCBL, UMR 5622, Villeurbanne, 69622, Fr.
SOURCE: Journal of Molecular Catalysis A: Chemical (2002), 182-183, 249-256
CODEN: JMCCF2; ISSN: 1381-1169
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A copolymer contg. enantiopure epoxy groups was prepd. in excellent yield by radical suspension copolymn. of (S)-glycidyl methacrylate with ethylene glycol dimethacrylate. In order to control the phys. and surfaces properties of the copolymer, we studied the influence of the stirring rate reaction and the concn. of the crosslinking agent on the copolymn. reaction. This allowed the evaluation of the influence of the sp. surface area, the particle size and the level of functionalization on catalytic efficiency of their copolymer derivs. These enantiopure poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) beads were then transformed into optically active polyamino alcs. through epoxide ring opening with different achiral or homochiral amines. In order to show the efficiency of these new copolymers, they were used as ligands of ruthenium in asym. hydrogen transfer redn. of acetophenone.

IT **74-89-5**, Methylamine, reactions **100-46-9**, Benzylamine, reactions **103-67-3**, N-Benzylmethylamine **3886-69-9**, (R)-.alpha.-Methylbenzylamine **5807-14-7**, 1,3,4,6,7,8-Hexahydro-2H-pyrimido[1,2-a]pyrimidine **5933-40-4 19131-99-8**, (S)-N,.alpha.-Dimethylbenzylamine
RL: RCT (Reactant); RACT (Reactant or reagent)
(for functionalization of **chiral** methacrylate copolymer; prepn. and functionalization and properties of enantiopure methacrylate copolymeric catalysts for hydrogen transfer redn. of acetophenone)

RN 74-89-5 HCAPLUS
CN Methanamine (9CI) (CA INDEX NAME)

H_3C-NH_2

RN 100-46-9 HCAPLUS
CN Benzenemethanamine (9CI) (CA INDEX NAME)

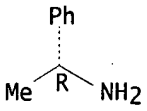
H_2N-CH_2-Ph

RN 103-67-3 HCAPLUS
CN Benzenemethanamine, N-methyl- (9CI) (CA INDEX NAME)

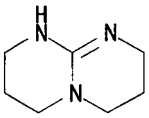
$MeNH-CH_2-Ph$

RN 3886-69-9 HCAPLUS
CN Benzenemethanamine, .alpha.-methyl-, (.alpha.R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

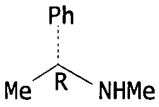


RN 5807-14-7 HCAPLUS
CN 2H-Pyrimido[1,2-a]pyrimidine, 1,3,4,6,7,8-hexahydro- (6CI, 8CI, 9CI) (CA INDEX NAME)



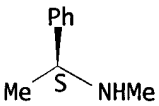
RN 5933-40-4 HCAPLUS
CN Benzenemethanamine, N,.alpha.-dimethyl-, (.alpha.R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

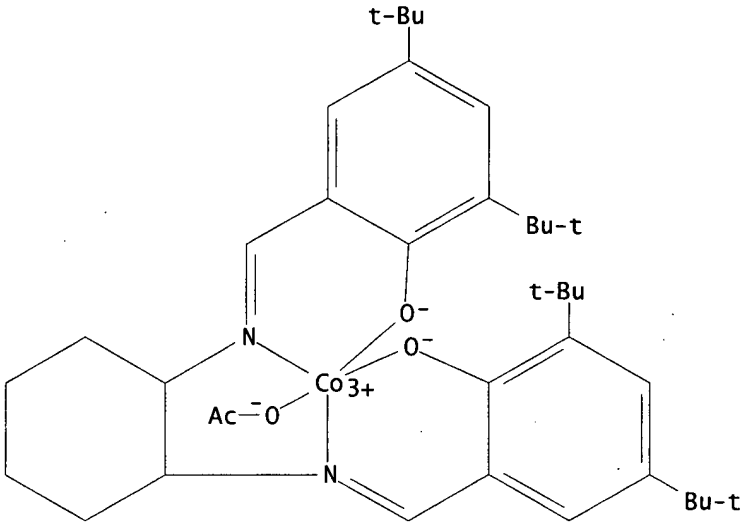


RN 19131-99-8 HCAPLUS
CN Benzenemethanamine, N,.alpha.-dimethyl-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

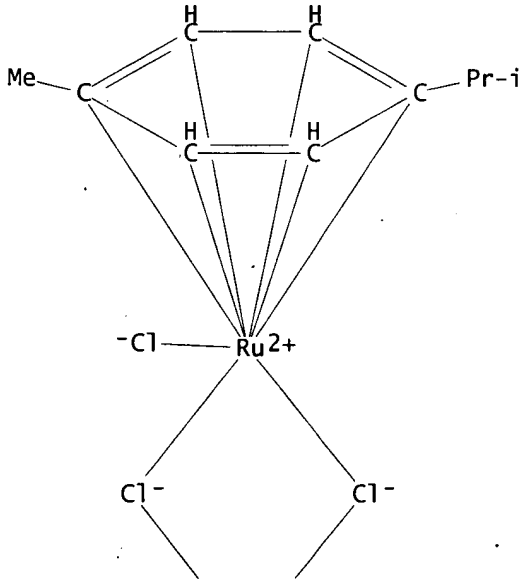


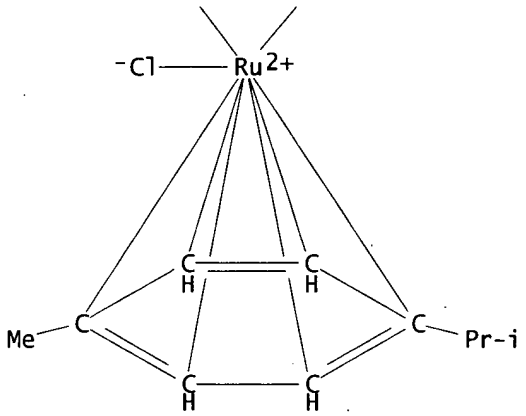
IT **201870-82-8**
RL: CAT (Catalyst use); USES (Uses)
(for prepn. of **chiral** glycidyl methacrylate; prepn. and catalytic performance of enantiopure amine-functionalized methacrylate copolymeric catalysts for hydrogen transfer redn. of acetophenone)
RN 201870-82-8 HCAPLUS
CN Cobalt, (acetato-.kappa.O)[[2,2'-[(1R,2R)-1,2-cyclohexanediylbis[(nitrilo-.kappa.N)methylidyne]]bis[4,6-bis(1,1-dimethylethyl)phenolato-.kappa.O]](2-)]-, (SP-5-13)- (9CI) (CA INDEX NAME)



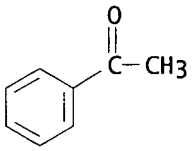
IT **52462-29-0**
RL: CAT (Catalyst use); USES (Uses)
(hydrogen transfer redn. of acetophenone in presence of enantiopure amine-functionalized methacrylate copolymeric catalysts and ruthenium complex)
RN 52462-29-0 HCAPLUS
CN Ruthenium, di-.mu.-chlorodichlorobis[(1,2,3,4,5,6-.eta.)-1-methyl-4-(1-methylethyl)benzene]di- (9CI) (CA INDEX NAME)

PAGE 1-A

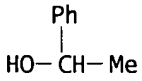




IT **98-86-2**, Acetophenone, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrogen transfer redn. of acetophenone in presence of enantiopure amine-functionalized methacrylate copolymeric catalysts and ruthenium complex)
RN 98-86-2 HCAPLUS
CN Ethanone, 1-phenyl- (9CI) (CA INDEX NAME)

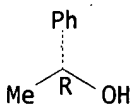


IT **98-85-1P 1517-69-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(hydrogen transfer redn. of acetophenone in presence of enantiopure amine-functionalized methacrylate copolymeric catalysts and ruthenium complex)
RN 98-85-1 HCAPLUS
CN Benzenemethanol, .alpha.-methyl- (9CI) (CA INDEX NAME)

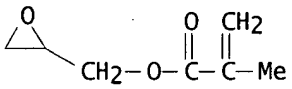


RN 1517-69-7 HCAPLUS
CN Benzenemethanol, .alpha.-methyl-, (.alpha.R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

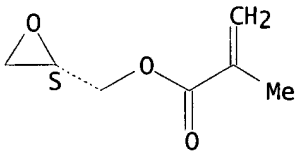


IT **106-91-2**, Glycidyl methacrylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. and catalytic performance of enantiopure amine-functionalized methacrylate copolymeric catalysts for hydrogen transfer redn. of acetophenone)
RN 106-91-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester (9CI) (CA INDEX NAME)



IT **78196-35-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and catalytic performance of enantiopure amine-functionalized methacrylate copolymeric catalysts for hydrogen transfer redn. of acetophenone)
RN 78196-35-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, (2S)-oxiranylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

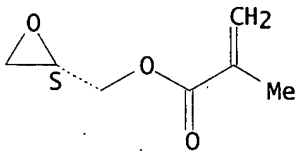


IT **354150-79-1P**
RL: CAT (Catalyst use); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. and functionalization of enantiopure methacrylate copolymeric catalysts for hydrogen transfer redn. of acetophenone)
RN 354150-79-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with (2S)-oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

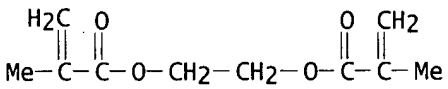
CRN 78196-35-7
CMF C7 H10 O3

Absolute stereochemistry.



CM 2

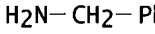
CRN 97-90-5
CMF C10 H14 O4



IT **74-89-5DP**, Methylamine, reaction products with (S)-glycidyl methacrylate-ethylene glycol dimethacrylate copolymer **100-46-9DP**, Benzylamine, reaction products with (S)-glycidyl methacrylate-ethylene glycol dimethacrylate copolymer **103-67-3DP**, N-Benzylmethylamine, reaction products with (S)-glycidyl methacrylate-ethylene glycol dimethacrylate copolymer **3886-69-9DP**, (R)-.alpha.-Methylbenzylamine, reaction products with (S)-glycidyl methacrylate-ethylene glycol dimethacrylate copolymer **5807-14-7DP**, 1,3,4,6,7,8-Hexahydro-2H-pyrimido[1,2-a]pyrimidine, reaction products with (S)-glycidyl methacrylate-ethylene glycol dimethacrylate copolymer **5933-40-4DP**, reaction products with (S)-glycidyl methacrylate-ethylene glycol dimethacrylate copolymer **19131-99-8DP**, (S)-N,.alpha.-Dimethylbenzylamine, reaction products with (S)-glycidyl methacrylate-ethylene glycol dimethacrylate copolymer **354150-79-1DP**, amine-functionalized
RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(prepn. and properties of enantiopure methacrylate copolymeric catalysts for hydrogen transfer redn. of acetophenone)

RN 74-89-5 HCAPLUS
CN Methanamine (9CI) (CA INDEX NAME)

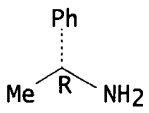
RN 100-46-9 HCAPLUS
CN Benzenemethanamine (9CI) (CA INDEX NAME)



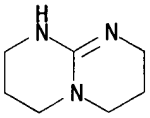
RN 103-67-3 HCAPLUS
CN Benzenemethanamine, N-methyl- (9CI) (CA INDEX NAME)

RN 3886-69-9 HCAPLUS
CN Benzenemethanamine, .alpha.-methyl-, (.alpha.R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

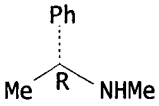


RN 5807-14-7 HCAPLUS
CN 2H-Pyrimido[1,2-a]pyrimidine, 1,3,4,6,7,8-hexahydro- (6CI, 8CI, 9CI) (CA INDEX NAME)



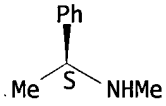
RN 5933-40-4 HCAPLUS
CN Benzenemethanamine, N,.alpha.-dimethyl-, (.alpha.R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 19131-99-8 HCAPLUS
CN Benzenemethanamine, N,.alpha.-dimethyl-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

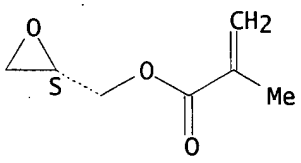


RN 354150-79-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with (2S)-oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

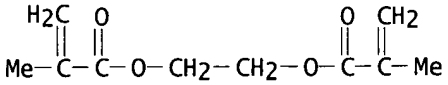
CRN 78196-35-7
CMF C7 H10 O3

Absolute stereochemistry.



CM 2

CRN 97-90-5
CMF C10 H14 O4



CC 25-16 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 22, 38, 67

ST copolymeric enantiopure bead asym heterogeneous catalysis; **chiral** glycol dimethacrylate ethylene glycol dimethacrylate copolymer catalyst; hydrogen transfer redn acetophenone asym heterogeneous catalyst

IT Particle size distribution
(of enantiopure methacrylate copolymers as catalysts for hydrogen transfer redn. of acetophenone)

IT Polymerization
(radical; of **chiral** glycidyl methacrylate with ethylene glycol dimethacrylate with subsequent amine functionalization for prepn. of enantiopure copolymeric catalysts for hydrogen transfer redn. of acetophenone)

IT Reduction catalysts
(stereoselective; hydrogen transfer redn. of acetophenone in presence of enantiopure amine-functionalized methacrylate copolymeric catalysts and ruthenium complex)

IT Reduction
(stereoselective; of acetophenone in presence of enantiopure amine-functionalized methacrylate copolymeric catalysts and ruthenium complex)

IT **74-89-5**, Methylamine, reactions **100-46-9**, Benzylamine, reactions **103-67-3**, N-Benzylmethylamine **3886-69-9**, (R)-.alpha.-Methylbenzylamine **5807-14-7**, 1,3,4,6,7,8-Hexahydro-2H-pyrimido[1,2-a]pyrimidine **5933-40-4 19131-99-8**, (S)-N,.alpha.-Dimethylbenzylamine
RL: RCT (Reactant); RACT (Reactant or reagent)
(for functionalization of **chiral** methacrylate copolymer; prepn. and functionalization and properties of enantiopure methacrylate copolymeric catalysts for hydrogen transfer redn. of acetophenone)

IT **201870-82-8**
RL: CAT (Catalyst use); USES (Uses)
(for prepn. of **chiral** glycidyl methacrylate; prepn. and catalytic performance of enantiopure amine-functionalized methacrylate copolymeric catalysts for hydrogen transfer redn. of acetophenone)

IT **52462-29-0**
RL: CAT (Catalyst use); USES (Uses)
(hydrogen transfer redn. of acetophenone in presence of enantiopure amine-functionalized methacrylate copolymeric catalysts and ruthenium complex)

IT **98-86-2**, Acetophenone, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrogen transfer redn. of acetophenone in presence of enantiopure amine-functionalized methacrylate copolymeric catalysts and ruthenium complex)

IT **98-85-1P 1517-69-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(hydrogen transfer redn. of acetophenone in presence of enantiopure amine-functionalized methacrylate copolymeric catalysts and ruthenium complex)

IT **106-91-2**, Glycidyl methacrylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. and catalytic performance of enantiopure amine-functionalized

methacrylate copolymeric catalysts for hydrogen transfer redn. of acetophenone)

IT **78196-35-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and catalytic performance of enantiopure amine-functionalized methacrylate copolymeric catalysts for hydrogen transfer redn. of acetophenone)

IT **354150-79-1P**
RL: CAT (Catalyst use); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. and functionalization of enantiopure methacrylate copolymeric catalysts for hydrogen transfer redn. of acetophenone)

IT **74-89-5DP**, Methylamine, reaction products with (S)-glycidyl methacrylate-ethylene glycol dimethacrylate copolymer **100-46-9DP**, Benzylamine, reaction products with (S)-glycidyl methacrylate-ethylene glycol dimethacrylate copolymer **103-67-3DP**, N-Benzylmethylamine, reaction products with (S)-glycidyl methacrylate-ethylene glycol dimethacrylate copolymer **3886-69-9DP**, (R)-.alpha.-Methylbenzylamine, reaction products with (S)-glycidyl methacrylate-ethylene glycol dimethacrylate copolymer **5807-14-7DP**, 1,3,4,6,7,8-Hexahydro-2H-pyrimido[1,2-a]pyrimidine, reaction products with (S)-glycidyl methacrylate-ethylene glycol dimethacrylate copolymer **5933-40-4DP**, reaction products with (S)-glycidyl methacrylate-ethylene glycol dimethacrylate copolymer **19131-99-8DP**, (S)-N,.alpha.-Dimethylbenzylamine, reaction products with (S)-glycidyl methacrylate-ethylene glycol dimethacrylate copolymer **354150-79-1DP**, amine-functionalized
RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(prepn. and properties of enantiopure methacrylate copolymeric catalysts for hydrogen transfer redn. of acetophenone)

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

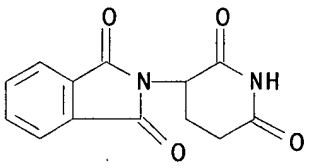
L12 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:430284 HCAPLUS
DOCUMENT NUMBER: 135:157787
TITLE: Enantioseparation of aminoglutethimide and thalidomide by high performance liquid chromatography or supercritical fluid chromatography on mono-2 and mono-6-O-pentenyl-.beta.-cyclodextrin-based **chiral** stationary phases
AUTHOR(S): **Duval, Raphael; Leveque, Hubert;** Prigent, Yann; Aboul-Enein, Hassan Y.
CORPORATE SOURCE: ChiralSep S.A., La Frenaye, 76170, Fr.
SOURCE: Biomedical Chromatography (2001), 15(3), 202-206
CODEN: BICHE2; ISSN: 0269-3879
PUBLISHER: John Wiley & Sons Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Mono-2 and mono-6-O-pentenyl-.beta.-cyclodextrin (mono-2-pent-.beta.-CD and mono-6-pent-.beta.-CD), covalently linked to mercaptopropylsilica gel (thiol-Si) through thioether or sulfone linkage, reveal differentiated enantioselectivities in the sepn. of piperidine-2,6-dione-related drugs, namely aminoglutethimide and thalidomide, in supercrit. fluid conditions. Supercrit. fluid chromatog. resoln. on completely defined mono-cyclodextrin deriv.-based **chiral** stationary phases (CSP) is a method of choice for the sepn. of aminoglutethimide but not effective for thalidomide. For both high performance liq. chromatog. (HPLC) and

supercrit. fluid chromatog. (SFC) conditions, the impact of the position, imposed to be 2 or 6 in our synthetic pathway, of the pentenyl moiety on one of the glucopyranosidics of the CD cage is of crucial importance in the **chiral** discrimination phenomenon. Addnl., the nature of the heteroatom present in the spacer arm between the CD and the silica gel, in this case thioether or sulfone functionality, is also essential for the **chiral** recognition mechanism(s) for the solute enantiomer.

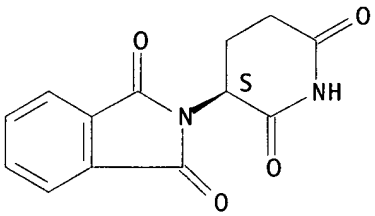
IT **50-35-1 841-67-8 2614-06-4 352652-56-3**
352652-57-4 352652-58-5
RL: ANT (Analyte); ANST (Analytical study)
(enantiosepn. of aminoglutethimide and thalidomide by HPLC or supercrit. fluid chromatog. on mono-substituted .beta.-cyclodextrin-based **chiral** stationary phases)

RN 50-35-1 HCAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2-(2,6-dioxo-3-piperidinyl)- (9CI) (CA INDEX NAME)



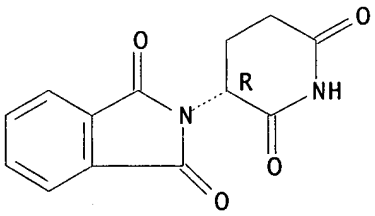
RN 841-67-8 HCAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2-[(3S)-2,6-dioxo-3-piperidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

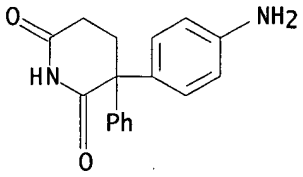


RN 2614-06-4 HCAPLUS
CN 1H-Isoindole-1,3(2H)-dione, 2-[(3R)-2,6-dioxo-3-piperidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

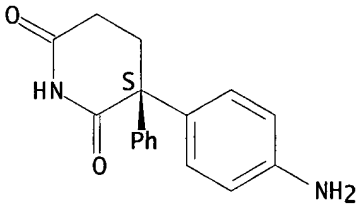


RN 352652-56-3 HCAPLUS
CN 2,6-Piperidinedione, 3-(4-aminophenyl)-3-phenyl- (9CI) (CA INDEX NAME)



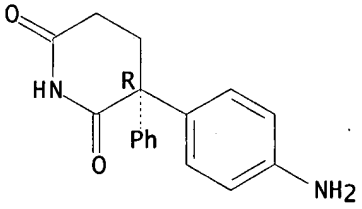
RN 352652-57-4 HCAPLUS
CN 2,6-Piperidinedione, 3-(4-aminophenyl)-3-phenyl-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 352652-58-5 HCAPLUS
CN 2,6-Piperidinedione, 3-(4-aminophenyl)-3-phenyl-, (3R)- (9CI) (CA INDEX NAME)

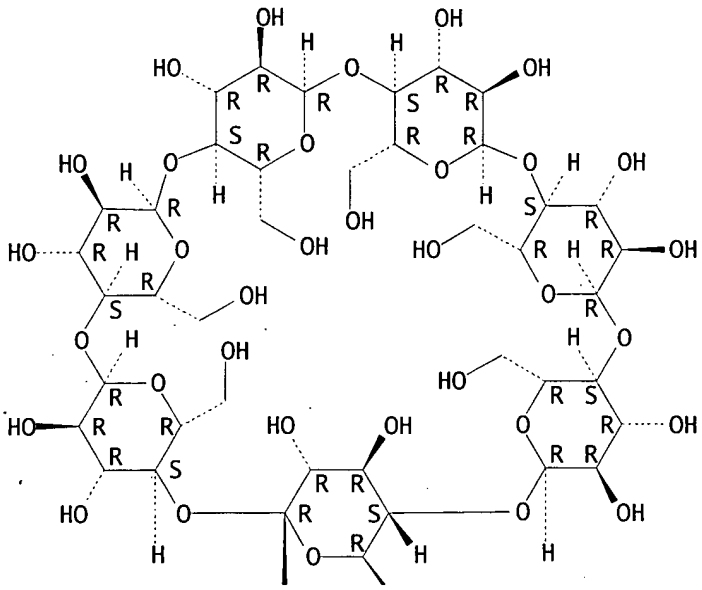
Absolute stereochemistry.



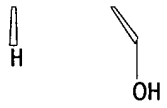
IT **7585-39-9D**, .beta.-Cyclodextrin, derivs.
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(enantiosepn. of aminoglutethimide and thalidomide by HPLC or supercrit. fluid chromatog. on mono-substituted .beta.-cyclodextrin-based **chiral** stationary phases)
RN 7585-39-9 HCAPLUS
CN .beta.-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



CC 64-3 (Pharmaceutical Analysis)
ST aminoglutethimide thalidomide resoln supercrit fluid chromatog; HPLC sepn aminoglutethimide thalidomide
IT HPLC
HPLC stationary phases
Supercritical fluid chromatography
(enantiosepn. of aminoglutethimide and thalidomide by HPLC or supercrit. fluid chromatog. on mono-substituted .beta.-cyclodextrin-based **chiral** stationary phases)
IT **50-35-1 841-67-8 2614-06-4 352652-56-3**
352652-57-4 352652-58-5
RL: ANT (Analyte); ANST (Analytical study)
(enantiosepn. of aminoglutethimide and thalidomide by HPLC or supercrit. fluid chromatog. on mono-substituted .beta.-cyclodextrin-based **chiral** stationary phases)
IT **7585-39-9D**, .beta.-Cyclodextrin, derivs.
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(enantiosepn. of aminoglutethimide and thalidomide by HPLC or supercrit. fluid chromatog. on mono-substituted .beta.-cyclodextrin-based **chiral** stationary phases)
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

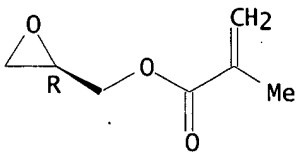
L12 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:372587 HCAPLUS

DOCUMENT NUMBER: 135:166677
TITLE: Enantiopure poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate): a new material for supported catalytic asymmetric hydrogen transfer reduction
AUTHOR(S): Rolland, A.; Herault, D.; Touchard, F.; Saluzzo, C.; **Duval, R.**; Lemaire, M.
CORPORATE SOURCE: UMR 5622, UCBL, CPE, Laboratoire de Catalyse et Synthese Organique, Villeurbanne, 69622, Fr.
SOURCE: Tetrahedron: Asymmetry (2001), 12(5), 811-815
CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:166677

AB A novel copolymer contg. **chiral** epoxy residues was prepd. Free radical initiated suspension copolymn. of (R)- or (S)-glycidyl methacrylate with ethylene glycol dimethacrylate afforded crosslinked copolymer in high yield. Optically active polymers contg. amino alc. functionalities were then formed from this copolymer through epoxide ring opening with a no. of achiral and homochiral amines. It was shown that ruthenium complexes based on these new polymeric amino alc. ligands were effective catalysts for the asym. hydrogen transfer redn. of acetophenone.

IT **130463-96-6P**
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(enantiopure poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) for supported catalytic asym. hydrogen transfer redn.)
RN 130463-96-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, (2R)-oxiranylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **75-04-7DP**, Ethylamine, reaction products with poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) **100-46-9DP**, Benzenemethanamine, reaction products with poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) **103-67-3DP**, N-Methylbenzylamine, reaction products with poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) **3886-69-9DP**, (R)-1-Phenylethylamine, reaction products with poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) **5933-40-4DP**, (R)-N-Methyl-1-phenylethylamine, reaction products with poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) **19131-99-8DP**, (S)-N-Methyl-1-phenylethylamine, reaction products with poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) **354150-79-1DP**, reaction products with amines
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(enantiopure poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) for supported catalytic asym. hydrogen transfer redn.)
RN 75-04-7 HCAPLUS
CN Ethanamine (9CI) (CA INDEX NAME)

$H_3C-CH_2-NH_2$

RN 100-46-9 HCAPLUS
CN Benzenemethanamine (9CI) (CA INDEX NAME)

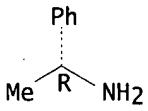
H_2N-CH_2-Ph

RN 103-67-3 HCAPLUS
CN Benzenemethanamine, N-methyl- (9CI) (CA INDEX NAME)

$MeNH-CH_2-Ph$

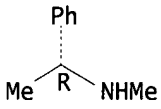
RN 3886-69-9 HCAPLUS
CN Benzenemethanamine, .alpha.-methyl-, (.alpha.R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



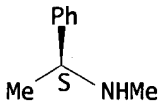
RN 5933-40-4 HCAPLUS
CN Benzenemethanamine, N,.alpha.-dimethyl-, (.alpha.R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 19131-99-8 HCAPLUS
CN Benzenemethanamine, N,.alpha.-dimethyl-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

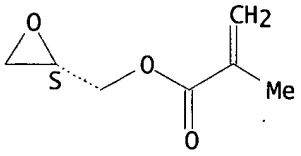


RN 354150-79-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with (2S)-oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

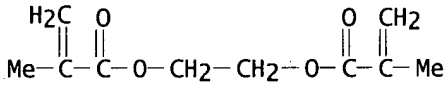
CRN 78196-35-7
CMF C7 H10 O3

Absolute stereochemistry.

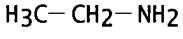


CM 2

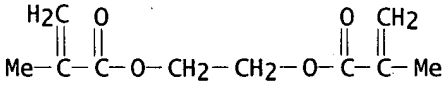
CRN 97-90-5
CMF C10 H14 O4



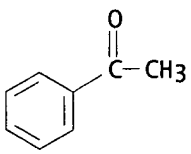
IT **75-04-7**, Ethylamine, reactions **97-90-5**, Ethylene glycol dimethacrylate **98-86-2**, Acetophenone, reactions **100-46-9**, Benzylamine, reactions **103-67-3**, N-Methylbenzylamine **106-91-2**, Glycidyl methacrylate **3886-69-9**, (R)-1-Phenylethylamine **5933-40-4**, (R)-N-Methyl-1-phenylethylamine **19131-99-8**, (S)-N-Methyl-1-phenylethylamine
RL: RCT (Reactant); RACT (Reactant or reagent)
(enantiopure poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) for supported catalytic asym. hydrogen transfer redn.)
RN 75-04-7 HCAPLUS
CN Ethanamine (9CI) (CA INDEX NAME)



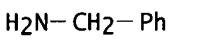
RN 97-90-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester (9CI) (CA INDEX NAME)



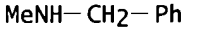
RN 98-86-2 HCAPLUS
CN Ethanone, 1-phenyl- (9CI) (CA INDEX NAME)



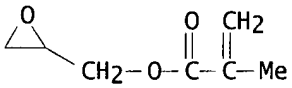
RN 100-46-9 HCAPLUS
CN Benzenemethanamine (9CI) (CA INDEX NAME)



RN 103-67-3 HCAPLUS
CN Benzenemethanamine, N-methyl- (9CI) (CA INDEX NAME)

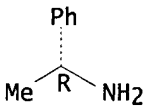


RN 106-91-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester (9CI) (CA INDEX NAME)



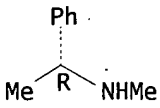
RN 3886-69-9 HCAPLUS
CN Benzenemethanamine, .alpha.-methyl-, (.alpha.R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



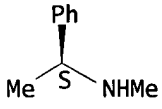
RN 5933-40-4 HCAPLUS
CN Benzenemethanamine, N,.alpha.-dimethyl-, (.alpha.R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 19131-99-8 HCAPLUS
CN Benzenemethanamine, N,.alpha.-dimethyl-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

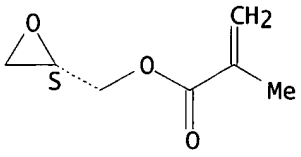


IT **78196-35-7P 354150-79-1P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(enantiopure poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) for supported catalytic asym. hydrogen transfer redn.)

RN 78196-35-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, (2S)-oxiranylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

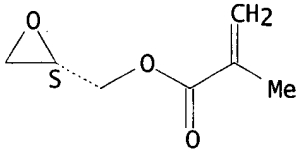


RN 354150-79-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with (2S)-oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

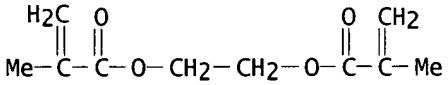
CRN 78196-35-7
CMF C7 H10 O3

Absolute stereochemistry.



CM 2

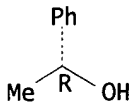
CRN 97-90-5
CMF C10 H14 O4



IT **1517-69-7P**, (R)-1-Phenylethanol
RL: SPN (Synthetic preparation); PREP (Preparation)
(enantiopure poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) for supported catalytic asym. hydrogen transfer redn.)

RN 1517-69-7 HCAPLUS
CN Benzenemethanol, .alpha.-methyl-, (.alpha.R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



CC 25-7 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 35
ST glycidyl methacrylate dimethacrylate copolymer prepn catalyst stereoselective redn acetophenone
IT Polymer-supported reagents
(enantiopure poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) for supported catalytic asym. hydrogen transfer redn.)
IT Hydrogenation
Hydrogenation catalysts
(stereoselective; enantiopure poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) for supported catalytic asym. hydrogen transfer redn.)
IT **130463-96-6P**
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(enantiopure poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) for supported catalytic asym. hydrogen transfer redn.)
IT **75-04-7DP**, Ethylamine, reaction products with poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) **100-46-9DP**, Benzenemethanamine, reaction products with poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) **103-67-3DP**, N-Methylbenzylamine, reaction products with poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) **3886-69-9DP**, (R)-1-Phenylethylamine, reaction products with poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) **5933-40-4DP**, (R)-N-Methyl-1-phenylethylamine, reaction products with poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) **19131-99-8DP**, (S)-N-Methyl-1-phenylethylamine, reaction products with poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) **354150-79-1DP**, reaction products with amines
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(enantiopure poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) for supported catalytic asym. hydrogen transfer redn.)
IT **75-04-7**, Ethylamine, reactions **97-90-5**, Ethylene glycol dimethacrylate **98-86-2**, Acetophenone, reactions **100-46-9**, Benzylamine, reactions **103-67-3**, N-Methylbenzylamine **106-91-2**, Glycidyl methacrylate **3886-69-9**, (R)-1-Phenylethylamine **5933-40-4**, (R)-N-Methyl-1-phenylethylamine **19131-99-8**, (S)-N-Methyl-1-phenylethylamine
RL: RCT (Reactant); RACT (Reactant or reagent)
(enantiopure poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) for supported catalytic asym. hydrogen transfer redn.)
IT **78196-35-7P 354150-79-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(enantiopure poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) for supported catalytic asym. hydrogen transfer redn.)
IT **1517-69-7P**, (R)-1-Phenylethanol
RL: SPN (Synthetic preparation); PREP (Preparation)
(enantiopure poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate) for supported catalytic asym. hydrogen transfer redn.)
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS

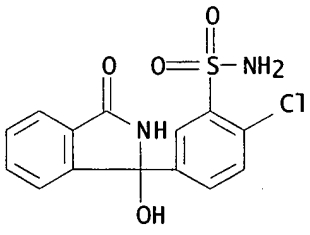
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:56569 HCAPLUS
DOCUMENT NUMBER: 132:175112
TITLE: Pure monopentenylated .beta.-cyclodextrin as **chiral** agent: purity check by LC-ELSD and LC-MS
AUTHOR(S): Caron, I.; Elfakir, C.; Dreux, M.; **Leveque, H.**; **Duval, R.**
CORPORATE SOURCE: Institut de Chimie Organique et Analytique (ICOA), CNRS UPRES-A 6005, Universite d'Orleans, Orleans, 45067, Fr.
SOURCE: Proceedings of the International Symposium on Cyclodextrins, 9th, Santiago de Comostela, Spain, May 31-June 3, 1998 (1999), Meeting Date 1998, 617-620. Editor(s): Labandeira, J. J. Torres; Vila-Jato, J. L. Kluwer Academic Publishers: Dordrecht, Neth. CODEN: 68NHAE
DOCUMENT TYPE: Conference
LANGUAGE: English

AB Liq. chromatog. (LC) with evaporative light scattering detection (ELSD) and LC-mass spectrometry (MS) were used to analyze monopentenylated .beta.-cyclodextrins (.beta.-CD) without further derivations. Spherisorb ODS and polymeric Astec NH2 columns were used with acetonitrile/water mixts. as the mobile phases. The LC-ELSD system is suitable for performing a simple and fast control of mono-2-O-pent-4-enyl-.beta.-CD synthesis without further derivations to ensure quality in these products. For **chiral** sepn., the use of well characterized pentenylated .beta.-CD derivs., by LC-ELSD and LC-MS, is recommended to achieve better batch to batch reproducibility of **chiral** stationary phase and in order to evaluate sepn. mechanisms.

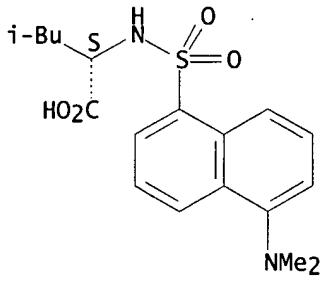
IT **77-36-1**, (.+-.)-Chlorthalidone **1100-22-7**, Dansyl-L-leucine **65452-14-4**, Dansyl-DL-leucine **74658-80-3**, (-)-Chlorthalidone **74658-81-4**, (+)-Chlorthalidone **99388-22-4**, Dansyl-D-leucine
RL: ANT (Analyte); PEP (Physical, engineering or chemical process); ANST (Analytical study); PROC (Process)
(LC-ELSD and LC-MS in anal. of purity of monopentenylated .beta.-cyclodextrin for **chiral** stationary phase in enantiomeric resoln. of)

RN 77-36-1 HCAPLUS
CN Benzenesulfonamide, 2-chloro-5-(2,3-dihydro-1-hydroxy-3-oxo-1H-isoindol-1-yl)- (9CI) (CA INDEX NAME)

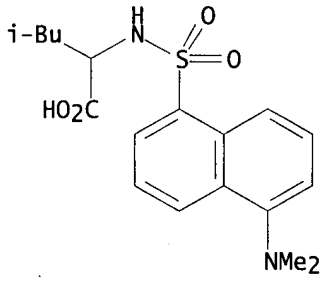


RN 1100-22-7 HCAPLUS
CN L-Leucine, N-[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

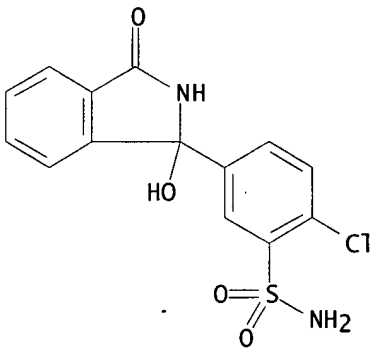


RN 65452-14-4 HCAPLUS
CN Leucine, N-[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]- (9CI) (CA INDEX NAME)



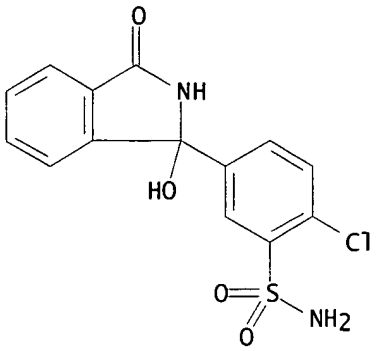
RN 74658-80-3 HCAPLUS
CN Benzenesulfonamide, 2-chloro-5-(2,3-dihydro-1-hydroxy-3-oxo-1H-isoindol-1-yl)-, (-)- (9CI) (CA INDEX NAME)

Rotation (-).



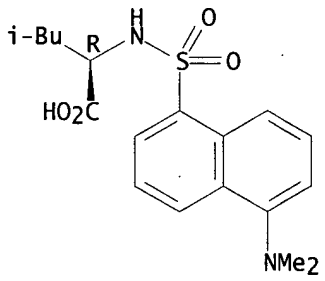
RN 74658-81-4 HCAPLUS
CN Benzenesulfonamide, 2-chloro-5-(2,3-dihydro-1-hydroxy-3-oxo-1H-isoindol-1-yl)-, (+)- (9CI) (CA INDEX NAME)

Rotation (+).



RN 99388-22-4 HCAPLUS
CN D-Leucine, N-[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]- (9CI) (CA INDEX NAME)

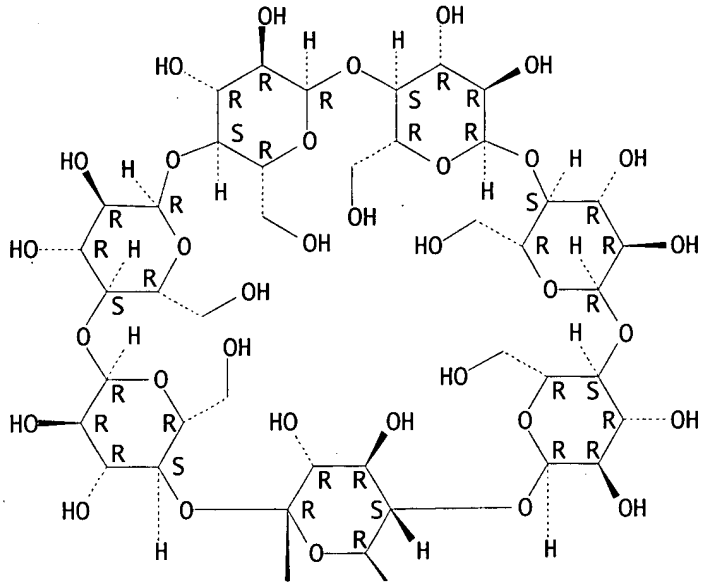
Absolute stereochemistry.



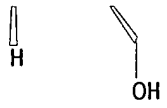
IT **7585-39-9**, .beta.-Cyclodextrin **7585-39-9D**,
.beta.-Cyclodextrin, pentenylated derivs. **259088-60-3**,
Mono-3-O-pent-4-enyl-.beta.-cyclodextrin
RL: ANT (Analyte); PEP (Physical, engineering or chemical process); ANST (Analytical study); PROC (Process)
(liq. chromatog./ELSD and LC-MS in anal. of pentenylated .beta.-cyclodextrin mixts.)
RN 7585-39-9 HCAPLUS
CN .beta.-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



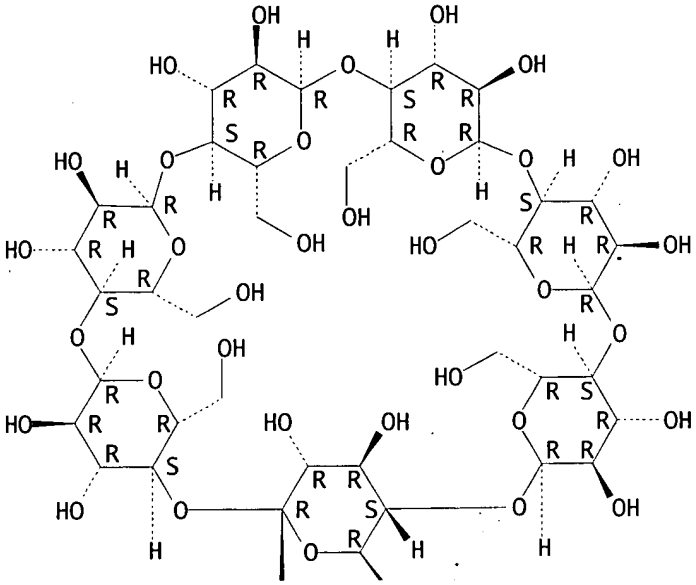
PAGE 2-A



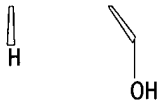
RN 7585-39-9 HCAPLUS
CN .beta.-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



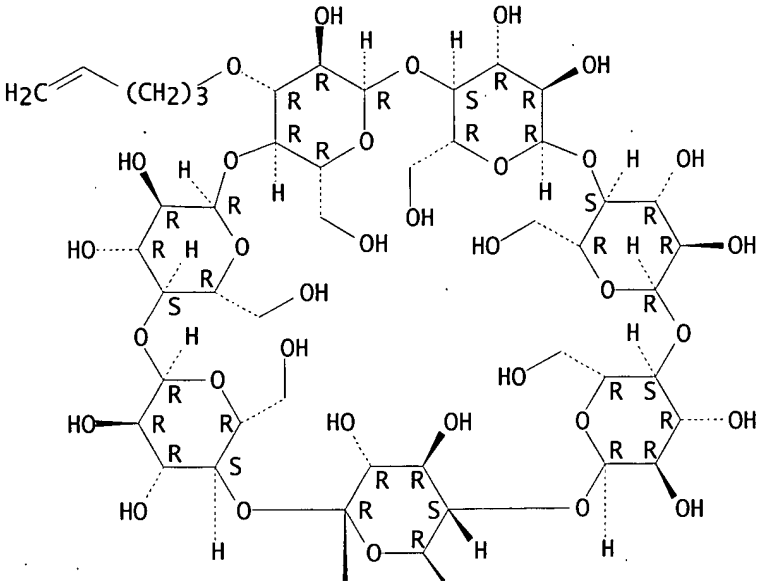
PAGE 2-A



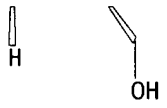
RN 259088-60-3 HCAPLUS
CN .beta.-Cyclodextrin, 3A-O-4-pentenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



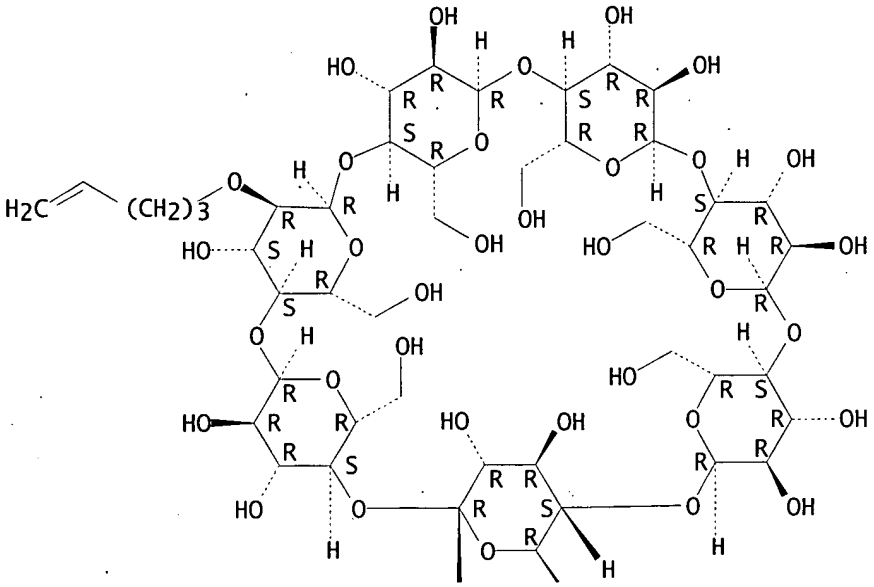
PAGE 2-A



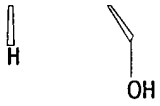
IT **162008-12-0**, Mono-2-O-pent-4-enyl-.beta.-cyclodextrin
259088-59-0, Mono-6-O-pent-4-enyl-.beta.-cyclodextrin
RL: AMX (Analytical matrix); ANT (Analyte); NUU (Other use, unclassified); ANST (Analytical study); USES (Uses)
(pure monopentenylated .beta.-cyclodextrin as **chiral** agent: purity check by LC-ELSD and LC-MS)
RN 162008-12-0 HCAPLUS
CN .beta.-Cyclodextrin, 2A-O-4-pentenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



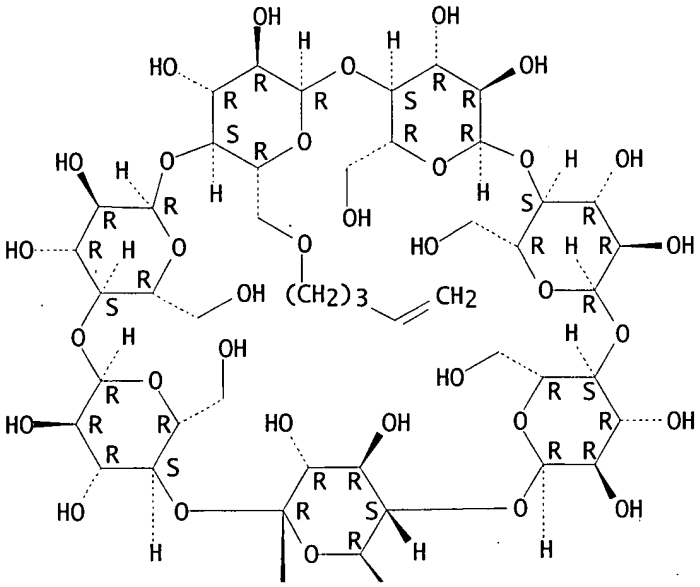
PAGE 2-A



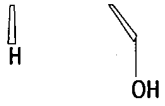
RN 259088-59-0 HCAPLUS
CN .beta.-Cyclodextrin, 6A-O-4-pentenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



CC 80-4 (Organic Analytical Chemistry)
Section cross-reference(s): 33

ST monopentenylated cyclodextrin purity analysis liq chromatog ELSD MS; **chiral** agent monopentenylated cyclodextrin purity analysis LC ELSD MS; evaporative light scattering detection LC monopentenylated cyclodextrin purity analysis; mass spectrometry LC monopentenylated cyclodextrin purity analysis

IT Resolution (separation)
(chromatog.; LC-ELSD and LC-MS in anal. of purity of monopentenylated .beta.-cyclodextrin for **chiral** stationary phase in enantiomeric resoln.)

IT Mass spectrometry
Mass spectrometry
(liq. chromatog. combined with; pure monopentenylated .beta.-cyclodextrin as **chiral** agent: purity check by LC-ELSD and LC-MS)

IT Liquid chromatography
Liquid chromatography
(mass spectrometry combined with; pure monopentenylated .beta.-cyclodextrin as **chiral** agent: purity check by LC-ELSD and LC-MS)

IT Liquid chromatography
(pure monopentenylated .beta.-cyclodextrin as **chiral** agent: purity check by LC-ELSD and LC-MS)

IT **77-36-1**, (.+-.)-Chlorthalidone **1100-22-7**,

Dansyl-L-leucine **65452-14-4**, Dansyl-DL-leucine **74658-80-3**, (-)-Chlorthalidone **74658-81-4**, (+)-Chlorthalidone **99388-22-4**, Dansyl-D-leucine
RL: ANT (Analyte); PEP (Physical, engineering or chemical process); ANST (Analytical study); PROC (Process)
(LC-ELSD and LC-MS in anal. of purity of monopentenylated .beta.-cyclodextrin for **chiral** stationary phase in enantiomeric resoln. of)

IT **7585-39-9**, .beta.-Cyclodextrin **7585-39-9D**, .beta.-Cyclodextrin, pentenylated derivs. **259088-60-3**, Mono-3-O-pent-4-enyl-.beta.-cyclodextrin
RL: ANT (Analyte); PEP (Physical, engineering or chemical process); ANST (Analytical study); PROC (Process)
(liq. chromatog./ELSD and LC-MS in anal. of pentenylated .beta.-cyclodextrin mixts.)

IT **162008-12-0**, Mono-2-O-pent-4-enyl-.beta.-cyclodextrin **259088-59-0**, Mono-6-O-pent-4-enyl-.beta.-cyclodextrin
RL: AMX (Analytical matrix); ANT (Analyte); NUU (Other use, unclassified); ANST (Analytical study); USES (Uses)
(pure monopentenylated .beta.-cyclodextrin as **chiral** agent: purity check by LC-ELSD and LC-MS)

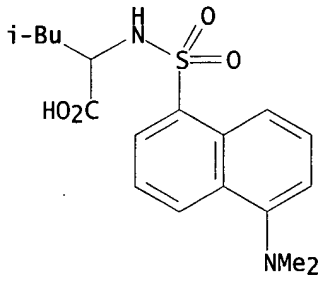
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:697800 HCAPLUS
DOCUMENT NUMBER: 128:26726
TITLE: Synthesis and evaluation in HPLC of a new **chiral** stationary phase based on a purified .beta.-cyclodextrin : .beta.-Kleptodex-2-OH
AUTHOR(S): **Duval, Raphael**
CORPORATE SOURCE: Ste Chiral Sep, La Frenaye, 76170, Fr.
SOURCE: Rivista Italiana EPPOS (1997), (Spec. Num., 15th Journees Internationales Huiles Essentielles, 1996), 785-790
CODEN: RIEPD7; ISSN: 0392-0445
PUBLISHER: Rivista Italiana EPPOS
DOCUMENT TYPE: Journal
LANGUAGE: French

AB Synthesis and valuation in HPLC of a new **chiral** stationary phase (CSP) is based on a pure monoderivative of .beta.-cyclodextrin which has been regioselectively linked at the 2-position of the glucosidic moiety. Influences of the length of the spacer arm and of the chem. treatment of the support on the selectivity factor have been demonstrated.

IT **65452-14-4**, Dansyl DL-leucine
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(resoln. of; synthesis and evaluation in HPLC of a new **chiral** stationary phase based on a purified .beta.-cyclodextrin : .beta.-Kleptodex-2-OH)

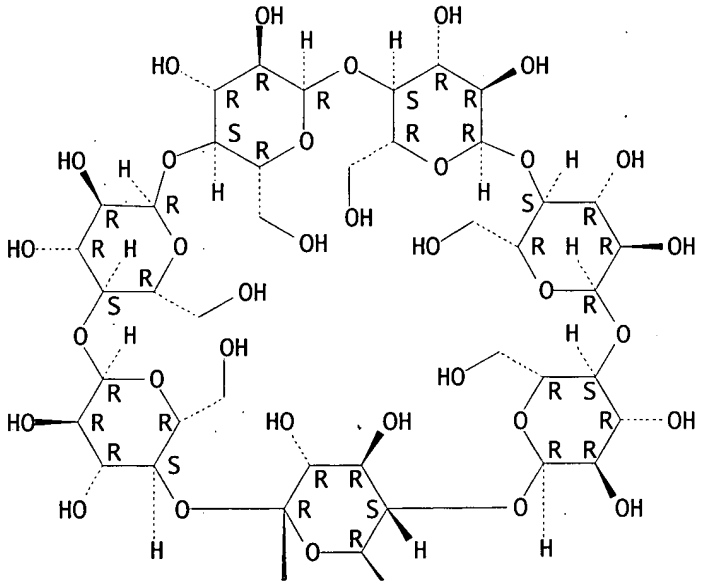
RN 65452-14-4 HCAPLUS
CN Leucine, N-[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]- (9CI) (CA INDEX NAME)



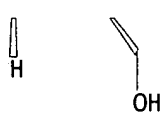
IT **7585-39-9DP**, .beta.-Cyclodextrin, hydroxy derivs.
199237-45-1P, .beta.-Kleptodex-2-OH
RL: ARU (Analytical role, unclassified); PNU (Preparation, unclassified); ANST (Analytical study); PREP (Preparation)
(synthesis and evaluation in HPLC of a new **chiral** stationary phase based on a purified .beta.-cyclodextrin : .beta.-Kleptodex-2-OH)
RN 7585-39-9 HCAPLUS
CN .beta.-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



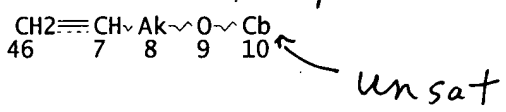
RN 199237-45-1 HCAPLUS
CN .beta.-Kleptodex-2-OH (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
CC 62-1 (Essential Oils and Cosmetics)
Section cross-reference(s): 9, 63
ST beta cyclodextrin Kleptodex **chiral** stationary phase; chromatog stationary phase **chiral** beta cyclodextrin
IT HPLC stationary phases
(**chiral**; synthesis and evaluation in HPLC of a new **chiral** stationary phase based on a purified .beta.-cyclodextrin : .beta.-Kleptodex-2-OH)
IT Resolution (separation)
(synthesis and evaluation in HPLC of a new **chiral** stationary phase based on a purified .beta.-cyclodextrin : .beta.-Kleptodex-2-OH)
IT **65452-14-4**, Dansyl DL-leucine
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(resoln. of; synthesis and evaluation in HPLC of a new **chiral** stationary phase based on a purified .beta.-cyclodextrin : .beta.-Kleptodex-2-OH)
IT **7585-39-9DP**, .beta.-Cyclodextrin, hydroxy derivs.
199237-45-1P, .beta.-Kleptodex-2-OH
RL: ARU (Analytical role, unclassified); PNU (Preparation, unclassified); ANST (Analytical study); PREP (Preparation)
(synthesis and evaluation in HPLC of a new **chiral** stationary phase based on a purified .beta.-cyclodextrin : .beta.-Kleptodex-2-OH)

=> file reg
FILE 'REGISTRY' ENTERED AT 13:57:52 ON 16 MAY 2003

=> d que stat l112 this is the STR search for the following queries in HCAPLUS

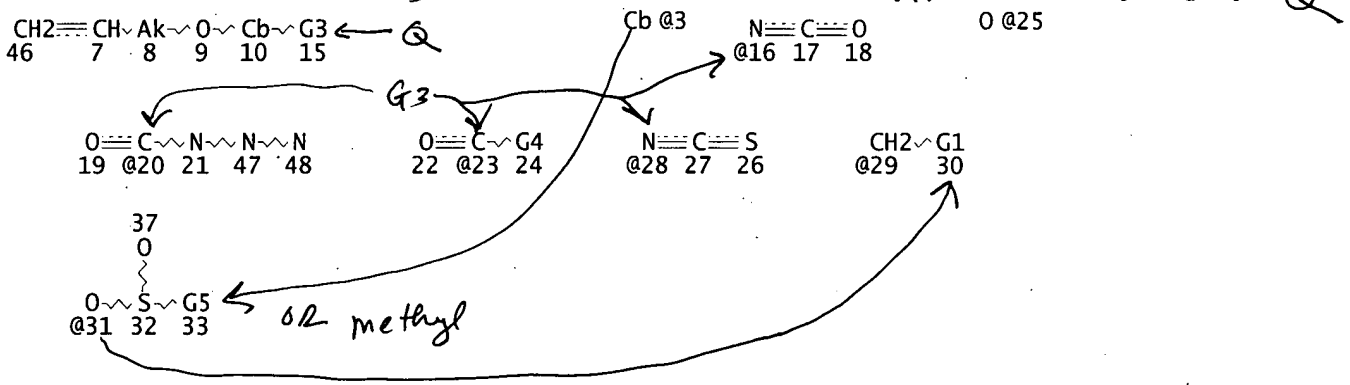
L1 SCR 2004 AND 1707 AND 1838
L2 SCR 970
L3 STR parent STR



NODE ATTRIBUTES:
CONNECT IS E2 RC AT 8
CONNECT IS E2 RC AT 10
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 10
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M2 C AT 8
ECOUNT IS E6 C AT 10

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE
L4 2405 SEA FILE=REGISTRY SSS FUL L3 AND L1 AND L2 2405 cpds
L9 STR subset STR - added the limitations for Q



VAR G1=X/31
VAR G3=16/20/23/28/NH2/29
VAR G4=X/25
VAR G5=3/ME
NODE ATTRIBUTES:
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CONNECT IS E2 RC AT 17
CONNECT IS E1 RC AT 25
CONNECT IS E2 RC AT 27
CONNECT IS E1 RC AT 37
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 3
GGCAT IS UNS AT 10
DEFAULT ECLEVEL IS LIMITED

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ECOUNT  IS M6 C  AT   3
ECOUNT  IS M2 C  AT   8
ECOUNT  IS E6 C  AT  10

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  28

STEREO ATTRIBUTES: NONE
L11           49 SEA FILE=REGISTRY SUB=L4 SSS FUL L9
L12           47 SEA FILE=REGISTRY ABB=ON  PLU=ON  L11/COM

=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 13:57:53 ON 16 MAY 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1907 - 16 May 2003  VOL 138 ISS 21
FILE LAST UPDATED: 15 May 2003  (20030515/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d que nos l51
L1             SCR 2004 AND 1707 AND 1838
L2             SCR 970
L3             STR
L4         2405 SEA FILE=REGISTRY SSS FUL L3 AND L1 AND L2
L9             STR
L11          49 SEA FILE=REGISTRY SUB=L4 SSS FUL L9
L12          47 SEA FILE=REGISTRY ABB=ON  PLU=ON  L11/COM
L39         123 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L12
L41       13631 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CHROMATOGRAPHIC STATIONARY
              PHASES+PFT,NT/CT
L42       45585 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HPLC+PFT,NT/CT
L51           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L39 AND (L41 OR L42)

=> d que nos l55
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L2             SCR 970
L3             STR
L4         2405 SEA FILE=REGISTRY SSS FUL L3 AND L1 AND L2
L9             STR
L11          49 SEA FILE=REGISTRY SUB=L4 SSS FUL L9
L12          47 SEA FILE=REGISTRY ABB=ON  PLU=ON  L11/COM
L39         123 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L12
L44       24051 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYMER CHAINS+NT/CT
L45        6207 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CHEMICAL CHAINS/CT
L54           8 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L39 AND (L44 OR L45)
L55           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L54 AND (CHIRAL? OR ENANTIOM?
              OR STEREOCHEM? OR ASSYMETRIC OR RESOLUTION)
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gets rid of cpds coming from incomplete iteration (junk)

47 cpds

these 47 cpds are the basis for the following queries

no STR displayed

STR search

123 cites for the 47 cpds

CT = controlled vocabulary

PFT = old, new OR "used for" terms

NT = narrower term

3 cites

STR search

3 cites

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=> d que nos l56

L1              SCR 2004 AND 1707 AND 1838
L2              SCR 970
L3              STR
L4          2405 SEA FILE=REGISTRY SSS FUL L3 AND L1 AND L2
L9              STR
L11           49 SEA FILE=REGISTRY SUB=L4 SSS FUL L9
L12           47 SEA FILE=REGISTRY ABB=ON  PLU=ON  L11/COM
L39          123 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L12
L43        48797 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CROSSLINKING/CT
L56            3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L43 AND L39
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3 cites

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=> d que nos l58

L1              SCR 2004 AND 1707 AND 1838
L2              SCR 970
L3              STR
L4          2405 SEA FILE=REGISTRY SSS FUL L3 AND L1 AND L2
L9              STR
L11           49 SEA FILE=REGISTRY SUB=L4 SSS FUL L9
L12           47 SEA FILE=REGISTRY ABB=ON  PLU=ON  L11/COM
L39          123 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L12
L41        13631 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CHROMATOGRAPHIC STATIONARY
               PHASES+PFT,NT/CT
L47         5205 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CHIRALITY/CT
L48          736 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CHIRAL RECOGNITION+OLD/CT
L49        74603 SEA FILE=HCAPLUS ABB=ON  PLU=ON  STEREOCHEMISTRY+PFT,NT/CT
L50            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L39 AND (L47 OR L48 OR L49)
L58            1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L41 AND L50
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1 cite

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=> d que nos l80
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← looking for papers that do (hydro)silation

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L2              SCR 970
L3              STR
L4          2405 SEA FILE=REGISTRY SSS FUL L3 AND L1 AND L2
L9              STR
L11           49 SEA FILE=REGISTRY SUB=L4 SSS FUL L9
L12           47 SEA FILE=REGISTRY ABB=ON  PLU=ON  L11/COM
L39          123 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L12
L74            9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L39 AND HYDROSILYLAT?/OBI
L76          109 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L39(L)(RACT OR RCT)/RL
L77            8 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L76 AND L74
L79            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L76 AND SILYLAT?/OBI
L80            9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L77 OR L79
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← fields searched are everything but the abstract

9 cites

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=> d que nos l110
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— looking for cites using poly/oligosaccharides

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L2              SCR 970
L3              STR
L4          2405 SEA FILE=REGISTRY SSS FUL L3 AND L1 AND L2
L9              STR
L11           49 SEA FILE=REGISTRY SUB=L4 SSS FUL L9
L12           47 SEA FILE=REGISTRY ABB=ON  PLU=ON  L11/COM
L39          123 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L12
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L105     412248 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYSACCHARIDES+PFT,NT/CT
L106     147008 SEA FILE=HCAPLUS ABB=ON  PLU=ON  OLIGOSACCHARIDES+PFT,NT/CT
L107     286437 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MONOSACCHARIDES+PFT,NT/CT
L108          2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L39 AND (L105 OR L106 OR
                 L107)
L109          2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L39 AND (?STARCH OR ?CYCLODEXT
                 RIN OR ?CELLULOSE OR ?DEXTRIN)
L110          3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L108 OR L109)
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3 cites

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=> s l51 or l55-56 or l58 or l80 or l110

L111         16 L51 OR (L55 OR L56) OR L58 OR L80 OR L110
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16 cites total

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=> d ibib abs hitstr 1

L111 ANSWER 1 OF 16 HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         2002:593320  HCAPLUS
DOCUMENT NUMBER:          137:325751
TITLE:                    Sign reversal of the dielectric anisotropy in the
                          chiral nematic phase of a copolysiloxane
AUTHOR(S):                Cesarino, C.; Komitov, L.; Galli, G.; Chiellini, E.
CORPORATE SOURCE:         Dipartimento di Chimica e Chimica Industriale,
                          Universita di Pisa, Pisa, 56126, Italy
SOURCE:                   Molecular Crystals and Liquid Crystals Science and
                          Technology, Section A: Molecular Crystals and Liquid
                          Crystals (2002), Volume Date 2001, 372, 217-227
                          CODEN: MCLCE9; ISSN: 1058-725X
PUBLISHER:                Taylor & Francis Ltd.
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
AB   A chiral polysiloxane was prepd. from (+)-(S)-2-methylbutyl-3-
     nitro-4-[4'-(7-octenyl-1-oxy)benzoyloxy]-benzoate and 4-Methoxyphenyl
     4-(allyloxy)benzoate by Pt catalyzed hydrosilylation of
     poly(methylhydrogensiloxane), to obtain side-chain liq. crystal
     polysiloxane structures.  The chiral polysiloxane exhibited
     nematic N* phase at 9-41.degree., and linear electro-optical response
     under an elec. field, due to the electroclinic effect.  At high elec.
     fields, the linearity of the response was strongly affected by dielec.
     coupling.  The influence of dielec. coupling on the electro-optical
     response became zero at 37.degree., attributed to a sign reversal of the
     dielec. anisotropy.
IT   110683-61-9P, 4-(7-Octenyl-1-oxy)benzoic acid
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP
     (Preparation); RACT (Reactant or reagent)
        (intermediate; prepn. and electrooptical response and dielec.
        anisotropy reversal of chiral nematic polysiloxane having
        methylbutylnitrooctenyloxy and methoxyphenyl-allyloxy benzoate side
        chains)
RN   110683-61-9  HCAPLUS
CN   Benzoic acid, 4-(7-octenyloxy)- (9CI)  (CA INDEX NAME)
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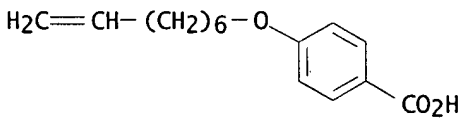


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REFERENCE COUNT:          9     THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS
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=> d ind

L111 ANSWER 1 OF 16 HCAPLUS COPYRIGHT 2003 ACS
CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36, 75
ST methylbutylnitrooctenyloxy benzoyloxybenzoate **hydrosilylation** polymethylsiloxane liq crystal prepn; methoxyphenyl benzoate polysiloxane side chain liq crystal prepn; dielec anisotropy electrooptical response **chiral** nematic polysiloxane; electroclinic effect side chain **chiral** polysiloxane liq crystal
IT Piezoelectricity
(electroclinic effect; prepn. and electrooptical response and dielec. anisotropy reversal of **chiral** nematic polysiloxane having methylbutylnitrooctenyloxy and methoxyphenyl-allyloxy benzoate side chains)
IT Polysiloxanes, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(methoxyphenyl- and nitrooctenyloxy-benzoate; prepn. and electrooptical response and dielec. anisotropy reversal of **chiral** nematic polysiloxane having methylbutylnitrooctenyloxy and methoxyphenyl-allyloxy benzoate side chains)
IT Liquid crystals, polymeric
(nematic N*; prepn. and electrooptical response and dielec. anisotropy reversal of **chiral** nematic polysiloxane having methylbutylnitrooctenyloxy and methoxyphenyl-allyloxy benzoate side chains)
IT Dielectric anisotropy
Electrooptical effect
Hydrosilylation
(prepn. and electrooptical response and dielec. anisotropy reversal of **chiral** nematic polysiloxane having methylbutylnitrooctenyloxy and methoxyphenyl-allyloxy benzoate side chains)
IT **Polymer chains**
(side, **chiral**; prepn. and electrooptical response and dielec. anisotropy reversal of **chiral** nematic polysiloxane having methylbutylnitrooctenyloxy and methoxyphenyl-allyloxy benzoate side chains)
IT **110683-61-9P**, 4-(7-Octenyl-1-oxy)benzoic acid 473672-04-7P, (S)-(+)-2-Methylbutyl 3-nitro-4-hydroxybenzoate
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(intermediate; prepn. and electrooptical response and dielec. anisotropy reversal of **chiral** nematic polysiloxane having methylbutylnitrooctenyloxy and methoxyphenyl-allyloxy benzoate side chains)
IT 473672-07-0P, (S)-(+)-2-Methylbutyl 3-nitro-4-[4'-(7-octenyl-1-oxy)benzoyloxy]benzoate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; prepn. and electrooptical response and dielec. anisotropy reversal of **chiral** nematic polysiloxane having methylbutylnitrooctenyloxy and methoxyphenyl-allyloxy benzoate side chains)
IT 9004-73-3DP, Methylsilanediol homopolymer, sru, reaction products with methoxyphenyl-allyloxy benzoate and methylbutylnitrooctenyloxy benzoyloxybenzoate 49718-23-2DP, Poly(methylsilanediol), reaction products with methoxyphenyl-allyloxy benzoate and

methylbutylnitrooctenyloxy benzoyloxybenzoate 73376-32-6DP, 4-Methoxyphenyl 4-(allyloxy)benzoate, reaction products with poly(methylhydrogensiloxane)-methylbutylnitrooctenyloxy benzoyloxybenzoate 473672-07-0DP, reaction products with poly(methylhydrogensiloxane)-methoxyphenyl-allyloxy benzoate
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and electrooptical response and dielec. anisotropy reversal of **chiral** nematic polysiloxane having methylbutylnitrooctenyloxy and methoxyphenyl-allyloxy benzoate side chains)

IT 99-96-7, 4-Hydroxybenzoic acid, reactions 616-82-0, 3-Nitro-4-hydroxybenzoic acid 1565-80-6, (S)-(-)-2-Methylbutanol 2695-48-9, 8-Bromo-1-octene
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. and electrooptical response and dielec. anisotropy reversal of **chiral** nematic polysiloxane having methylbutylnitrooctenyloxy and methoxyphenyl-allyloxy benzoate side chains)

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L111 ANSWER 2 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:369012 HCAPLUS
DOCUMENT NUMBER: 136:379289
TITLE: Chloro-, hydroxy- and alkoxysilane derivatives of polysaccharides or oligosaccharides, polymerizable and cross-linkable, their synthesis and their use as sources of novel support materials
INVENTOR(S): Duval, Raphael
PATENT ASSIGNEE(S): Institut Francais du Petrole, Fr.; Chiralsep
SOURCE: U.S. Pat. Appl. Publ., 19 pp., Cont.-in-part of U.S. Ser. No. 394,868.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

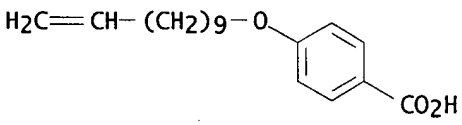
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002058763	A1	20020516	US 2001-808190	20010315
US 6514407	B2	20030204		
FR 2784109	A1	20000407	FR 1998-11377	19980911
US 6346616	B1	20020212	US 1999-394868	19990913

PRIORITY APPLN. INFO.: FR 1998-11377 A 19980911
US 1999-394868 A2 19990913

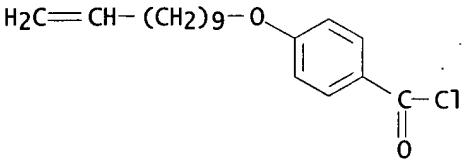
AB There are described chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides as novel compds. which are polymerizable and cross-linkable, and a method for obtaining them; novel support materials obtained from said derivs. and contg. said silane derivs. of polysaccharides or oligosaccharides chem. grafted by a covalent bond with the support and polymd. and cross-linked in a three-dimensional network and a method for obtaining them; as well as the use of said material supports in sepn. or in prepn. of enantiomers, through employment in gaseous, liq. or supercrit. chromatog., by electrophoresis, electrochromatog. or by percolation processes through membranes contg. said support materials.

IT **59100-95-7P**, 4-(10-Undecenyloxy)benzoic acid **130747-08-9P**
, 4-(10-Undecenyloxy)benzoyl chloride
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and cross-linkable, synthesis and use as sources of novel support materials in chiral sepn.)

RN 59100-95-7 HCAPLUS
CN Benzoic acid, 4-(10-undecenyloxy)- (9CI) (CA INDEX NAME)



RN 130747-08-9 HCAPLUS
CN Benzoyl chloride, 4-(10-undecenyloxy)- (9CI) (CA INDEX NAME)



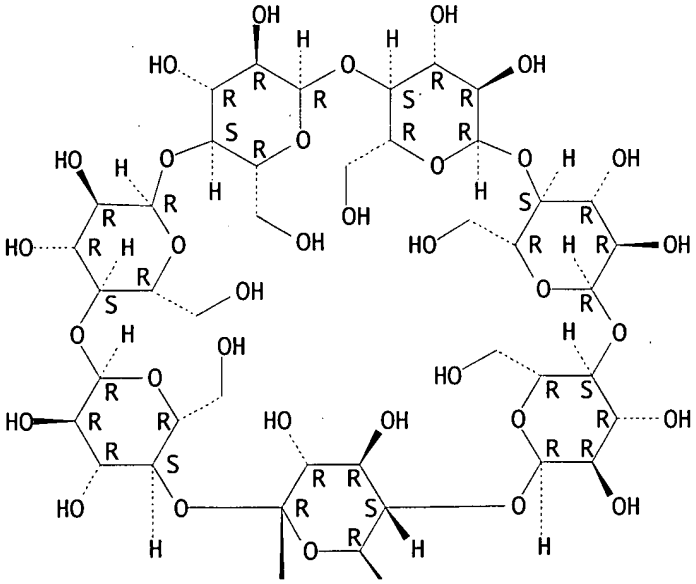
IT **7585-39-9DP**, .beta.-**Cyclodextrin**, derivs., reaction products with silica and functionalized silanes **9004-34-6DP**, **Cellulose**, derivs., reaction products with silica and functionalized silanes **9004-54-0DP**, Dextran, derivs., reaction products with silica and functionalized silanes **9005-80-5DP**, Inulin, derivs., reaction products with silica and functionalized silanes **9012-76-4DP**, Chitosan, derivs., reaction products with silica and functionalized silanes **9051-97-2DP**, .beta.-D-Glucan, (1.fwdarw.3)-, derivs., reaction products with silica and functionalized silanes **9057-02-7DP**, Pullulan, derivs., reaction products with silica and functionalized silanes **54724-00-4DP**, Curdlan, derivs., reaction products with silica and functionalized silanes
RL: NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(supports; chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and cross-linkable, synthesis and use as sources of novel support materials in chiral sepn.)

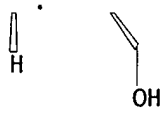
RN 7585-39-9 HCAPLUS

CN .beta.-Cyclodextrin (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A





RN 9004-34-6 HCAPLUS
CN Cellulose (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9004-54-0 HCAPLUS
CN Dextran (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-80-5 HCAPLUS
CN Inulin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9012-76-4 HCAPLUS
CN Chitosan (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9051-97-2 HCAPLUS
CN .beta.-D-Glucan, (1.fwdarw.3)- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9057-02-7 HCAPLUS
CN Pullulan (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 54724-00-4 HCAPLUS
CN Curdlan (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC ICM C07H001-00
NCL 526123100
CC 80-3 (Organic Analytical Chemistry)
Section cross-reference(s): 43
ST chloro hydroxy alkoxysilane deriv polysaccharide oligosaccharide polymerizable stationary phase; silane functionalized polysaccharide chiral sepn; **cellulose** deriv silane functionalized chiral support
IT **Chromatographic stationary phases**
HPLC
Silylation
(chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and cross-linkable, synthesis and use as sources of novel support materials in chiral sepn.)
IT **Oligosaccharides, reactions**
Polysaccharides, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and cross-linkable, synthesis and use as sources of novel support materials in chiral sepn.)
IT 119-53-9, Benzoin 487-26-3, Flavanone 1439-07-2, Trans-Stilbene oxide 3966-32-3, (R)-.alpha.-Methoxyphenyl acetic acid 5928-66-5, (R)-Benzoin 5928-67-6, (S)-Benzoin 7021-09-2, .alpha.-Methoxyphenyl acetic acid 13523-86-9, Pindolol 17002-31-2, (-)-Flavanone 25144-18-7,

(+)-Trans-Stilbene oxide 26164-26-1, (S)-.alpha.-Methoxyphenyl acetic acid 26328-11-0, (S)-Pindolol 27439-12-9, (+)-Flavanone 40102-60-1, (-)-Trans-Stilbene oxide 68374-35-6, (R)-Pindolol
RL: ANT (Analyte); ANST (Analytical study)
(chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and cross-linkable, synthesis and use as sources of novel support materials in chiral sepn.)

IT 98-59-9, 4-Methylbenzene sulfonyl chloride 112-43-6, 10-Undecen-1-ol 120-47-8, Ethyl 4-hydroxybenzoate 4420-74-0, 3-Mercaptopropyltrimethoxysilane 38460-95-6, 10-Undecenoyl chloride 54132-75-1, 3,5-Dimethylphenyl isocyanate
RL: RCT (Reactant); RACT (Reactant or reagent)
(chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and cross-linkable, synthesis and use as sources of novel support materials in chiral sepn.)

IT 51148-67-5P **59100-95-7P**, 4-(10-Undecenyloxy)benzoic acid 123598-41-4P, Ethyl 4-(10-undecenyloxy) benzoate **130747-08-9P**, 4-(10-Undecenyloxy)benzoyl chloride
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and cross-linkable, synthesis and use as sources of novel support materials in chiral sepn.)

IT 602-09-5P, [1,1'-Binaphthalene]-2,2'-diol 65487-67-4P, 9-Anthracenemethanol, ..alpha..-(trifluoromethyl)-
RL: PUR (Purification or recovery); PREP (Preparation)
(enantiomeric sepn. of; chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and cross-linkable, synthesis and use as sources of novel support materials in chiral sepn.)

IT 170211-41-3P, **Cellulose**, (3,5-dimethylphenyl)carbamate 10-undecenoate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and functionalization of; chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and cross-linkable, synthesis and use as sources of novel support materials in chiral sepn.)

IT 18531-94-7P, [1,1'-Binaphthalene]-2,2'-diol, (1R)- 18531-99-2P, [1,1'-Binaphthalene]-2,2'-diol, (1S)- 53531-34-3P, 9-Anthracenemethanol, .alpha.-(trifluoromethyl)-, (.alpha.R)- 60646-30-2P, 9-Anthracenemethanol, ..alpha..-(trifluoromethyl)-, (S)-
RL: PUR (Purification or recovery); PREP (Preparation)
(sepn. of, from racemic mixts.; chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and cross-linkable, synthesis and use as sources of novel support materials in chiral sepn.)

IT 998-30-1DP, Triethoxysilane, reaction products with silica and **cellulose** (dimethylphenyl)carbamate undecenoate **7585-39-9DP**, .beta.-**Cyclodextrin**, derivs., reaction products with silica and functionalized silanes 7631-86-9DP, Silica, reaction products with functionalized silanes and **cellulose** (dimethylphenyl)carbamate undecenoate **9004-34-6DP**, **Cellulose**, derivs., reaction products with silica and functionalized silanes **9004-54-0DP**, Dextran, derivs., reaction products with silica and functionalized silanes **9005-80-5DP**, Inulin, derivs., reaction products with silica and functionalized silanes **9012-76-4DP**, Chitosan, derivs., reaction products with silica and functionalized silanes 9051-95-0DP, .alpha.-1,3-Glucan, derivs., reaction products with silica and functionalized silanes

9051-97-2DP, .beta.-D-Glucan, (1.fwdarw.3)-, derivs., reaction products with silica and functionalized silanes 9051-99-4DP, .beta.-1,2-Glucan, derivs., reaction products with silica and functionalized silanes 9052-06-6DP, .beta.-D-Mannan, (1.fwdarw.4)-, derivs., reaction products with silica and functionalized silanes **9057-02-7DP**, Pullulan, derivs., reaction products with silica and functionalized silanes 9063-63-2DP, .beta.-D-Xylan, (1.fwdarw.4)-, derivs., reaction products with silica and functionalized silanes 10025-78-2DP, Trichlorosilane, reaction products with silica and **cellulose** (dimethylphenyl)carbamate undecenoate **54724-00-4DP**, Curdlan, derivs., reaction products with silica and functionalized silanes 92880-82-5DP, .beta.-D-Fructan, (2.fwdarw.1)-, derivs., reaction products with silica and functionalized silanes 170211-41-3DP, **Cellulose**, (3,5-dimethylphenyl)carbamate 10-undecenoate, reaction products with silica and functionalized silanes
RL: NUU (Other use, unclassified); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(supports; chloro-, hydroxy- and alkoxysilane derivs. of polysaccharides or oligosaccharides, polymerizable and cross-linkable, synthesis and use as sources of novel support materials in chiral sepn.)

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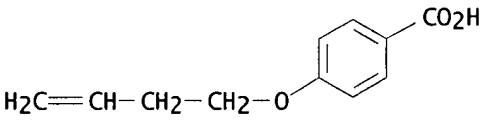
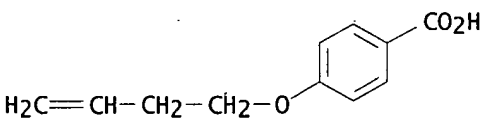
L111 ANSWER 3 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:261996 HCAPLUS
DOCUMENT NUMBER: 137:47778
TITLE: Liquid crystal polysiloxane networks as materials for molecular imprinting technology: memory of the mesomorphic organization
AUTHOR(S): Marty, J.-D.; Mauzac, M.; Fournier, C.; Rico-Lattes, I.; Lattes, A.
CORPORATE SOURCE: Laboratoire des Interactions Moleculaires et Reactivite Chimique et Photochimique, U.M.R., CNRS 5623, Universite Paul Sabatier, Toulouse, 31062, Fr.
SOURCE: Liquid Crystals (2002), 29(4), 529-536
CODEN: LICRE6; ISSN: 0267-8292
PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A novel approach to the synthesis of molecularly imprinted polymers via non-covalent linkages has been studied. It relies on the use of thermotropic side group liq. crystal polymer networks. The polysiloxane networks obtained after extn. of the template preserved the mesomorphic organization set up in the presence of the guest mol. A first batch rebinding anal. was performed: this study revealed that the imprinted polymer has a much greater affinity for the template mol. than has the non-imprinted polymer, and a significant selectivity.

IT **115595-27-2DP**, 4-(3-Butenyloxy)benzoic acid, reaction products with docosadiene-crosslinked poly(Me siloxane), optionally H-bonded to diaminonaphthalene template
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of diaminonaphthalene template-imprinted liq.-cryst. polysiloxane network via **hydrosilylation** of poly(Me siloxane))
RN 115595-27-2 HCAPLUS
CN Benzoic acid, 4-(3-butenyloxy)- (9CI) (CA INDEX NAME)



IT **115595-27-2P**, 4-(3-Butenyloxy)benzoic acid
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(template H-bonding substituent; prepn. of diaminonaphthalene template-imprinted liq.-cryst. polysiloxane network via **hydrosilylation** of poly(Me siloxane))
RN 115595-27-2 HCAPLUS
CN Benzoic acid, 4-(3-butenyloxy)- (9CI) (CA INDEX NAME)



CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 36, 75
ST template diaminonaphthalene hydrogen bonding butenyloxyphenylbenzoic acid modified polysiloxane network
IT Phase transition enthalpy
(isotopic-nematic; of template-imprinted liq.-cryst. polysiloxane network prepd. via **hydrosilylation** of poly(Me siloxane))
IT Polymer morphology
(layer spacing in smectic A phase; of template-imprinted liq.-cryst. polysiloxane network prepd. via **hydrosilylation** of poly(Me siloxane))
IT Liquid crystals, polymeric
(nematic; prepn. of diaminonaphthalene template-imprinted liq.-cryst. polysiloxane network via **hydrosilylation** of poly(Me siloxane))
IT Glass transition temperature
(of template-imprinted liq.-cryst. polysiloxane network prepd. via **hydrosilylation** of poly(Me siloxane))
IT Swelling, physical
(prepn. of diaminonaphthalene template-imprinted liq.-cryst. polysiloxane network via **hydrosilylation** of poly(Me siloxane))
IT Liquid crystals, polymeric
(smectic A; prepn. of diaminonaphthalene template-imprinted liq.-cryst. polysiloxane network via **hydrosilylation** of poly(Me siloxane))
IT Condensation reaction
Hydrosilylation
(template; prepn. of diaminonaphthalene template-imprinted liq.-cryst. polysiloxane network via **hydrosilylation** of poly(Me siloxane))
IT Liquid crystals, polymeric
(thermotropic; prepn. of diaminonaphthalene template-imprinted liq.-cryst. polysiloxane network via **hydrosilylation** of poly(Me siloxane))
IT 60-29-7, Diethyl ether, uses 64-17-5, Ethanol, uses 67-64-1, Acetone, uses 67-66-3, Chloroform, uses 75-05-8, Acetonitrile, uses 108-88-3, Toluene, uses 142-82-5, Heptane, uses
RL: NUU (Other use, unclassified); USES (Uses)
(crosslinked diaminonaphthalene template-imprinted polysiloxane network swelling in)
IT 99-96-7, 4-Hydroxybenzoic acid, reactions 100-09-4, Anisic acid 123-31-9, Hydroquinone, reactions 619-65-8, 4-Cyanobenzoic acid 5162-44-7, 4-Bromo-1-butene
RL: RCT (Reactant); RACT (Reactant or reagent)
(mesogenic substituent synthesis; prepn. of diaminonaphthalene template-imprinted liq.-cryst. polysiloxane network via **hydrosilylation** of poly(Me siloxane))
IT 114482-61-0P, 4-(3-Butenyloxy)phenyl 4-methoxybenzoate 118909-86-7P, 4-(3-Butenyloxy)phenol
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(mesogenic substituent synthesis; prepn. of diaminonaphthalene template-imprinted liq.-cryst. polysiloxane network via **hydrosilylation** of poly(Me siloxane))
IT 114482-56-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(mesogenic substituent; prepn. of diaminonaphthalene template-imprinted liq.-cryst. polysiloxane network via **hydrosilylation** of

poly(Me siloxane))

IT 114482-56-3DP, reaction products with docosadiene-crosslinked poly(Me siloxane) contg. pendent benzoic acid groups optionally H-bonded to diaminonaphthalene template 114482-61-0DP, 4-(3-Butenyloxy)phenyl 4-methoxybenzoate, reaction products with docosadiene-crosslinked poly(Me siloxane) contg. pendent benzoic acid groups optionally H-bonded to diaminonaphthalene template **115595-27-2DP**, 4-(3-Butenyloxy)benzoic acid, reaction products with docosadiene-crosslinked poly(Me siloxane), optionally H-bonded to diaminonaphthalene template 438460-76-5DP, reaction products with butenyloxyphenylbenzoic acid optionally H-bonded to diaminonaphthalene template and butenyloxycyano- or -methoxyphenylbenzoic acids
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of diaminonaphthalene template-imprinted liq.-cryst. polysiloxane network via **hydrosilylation** of poly(Me siloxane))

IT 2243-62-1, 1,5-Diaminonaphthalene
RL: MSC (Miscellaneous)
(substrate selectivity of diaminonaphthalene template-imprinted liq.-cryst. polysiloxane network prepd. via **hydrosilylation** of poly(Me siloxane))

IT **115595-27-2P**, 4-(3-Butenyloxy)benzoic acid
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(template H-bonding substituent; prepn. of diaminonaphthalene template-imprinted liq.-cryst. polysiloxane network via **hydrosilylation** of poly(Me siloxane))

IT 58-55-9, uses 479-27-6, 1,8-Diaminonaphthalene 1161-13-3, N-Benzyloxycarbonyl-L-phenylalanine
RL: NUU (Other use, unclassified); USES (Uses)
(template; prepn. of diaminonaphthalene template-imprinted liq.-cryst. polysiloxane network via **hydrosilylation** of poly(Me siloxane))

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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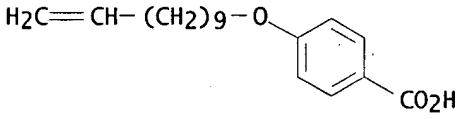
L111 ANSWER 4 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:524123 HCAPLUS
DOCUMENT NUMBER: 135:242623
TITLE: Synthesis of new carbosilane ferroelectric liquid-crystalline dendrimers
AUTHOR(S): Zhu, X. M.; Vinokur, R. A.; Ponomarenko, S. A.; Rebrov, E. A.; Muzafarov, A. M.; Boiko, N. I.; Shibaev, V. P.
CORPORATE SOURCE: Khim. Fak., Mosk. Gos. Univ. im. M. V. Lomonosova, Moscow, Vorob'evy Gory, 119899, Russia
SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B (2000), 42(12), 2055-2064
CODEN: VSSBEE; ISSN: 1023-3091
PUBLISHER: MAIK Nauka/Interperiodica Publishing
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB Two series of carbosilane ferroelec. LC dendrimers of the first-third generations contg. 8, 16, and 32 chiral mesogenic terminal groups, resp., were synthesized for the first time. The structure of all the synthesized compds. wa studied by NMR spectroscopy. It was found that all these compds. display a chiral smectic C mesophase in a wide temp. interval. It was demonstrated that as the generation no. increases, spontaneous polarization diminishes; its max. for the dendrimer of the first generation is about 140 nC/cm2.

IT **59100-95-7P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(mesogen synthesis; synthesis of carbosilane ferroelec. liq.-cryst. dendrimers)
RN 59100-95-7 HCAPLUS
CN Benzoic acid, 4-(10-undecenyloxy)- (9CI) (CA INDEX NAME)



CC 35-7 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36, 75
ST chiral smectic ferroelec carbosilane dendrimer synthesis spontaneous polarization
IT Liquid crystals, polymeric
(chiral smectic; synthesis of carbosilane ferroelec. liq.-cryst. dendrimers)
IT Polycarbosilanes
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(dendrimers; synthesis of carbosilane ferroelec. liq.-cryst. dendrimers)
IT Phase transition enthalpy
Spontaneous dielectric polarization
(of carbosilane ferroelec. liq.-cryst. dendrimers)
IT Dendritic polymers
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polycarbosilanes; synthesis of carbosilane ferroelec. liq.-cryst. dendrimers)

IT **Hydrosilylation**
(synthesis of carbosilane ferroelec. liq.-cryst. dendrimers using)

IT 205034-47-5DP, Allylmagnesium chloride-dichloromethylsilane copolymer, silyl-endcapped mesogen terminated 333720-10-8DP, reaction products with polycarbosilane dendrimers 360794-69-0DP, reaction products with polycarbosilane dendrimers
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(liq.-cryst. G1-G3; synthesis of carbosilane ferroelec. liq.-cryst. dendrimers)

IT 79-22-1, Methylchloroformate 687-47-8, Ethyl (S)-lactate 14180-11-1, 4-Methoxycarbonyloxybenzoic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(mesogen synthesis; synthesis of carbosilane ferroelec. liq.-cryst. dendrimers)

IT 99-96-7P, 4-Hydroxybenzoic acid, preparation 7766-50-9P **59100-95-7P** 78152-12-2P, 4-Methoxycarbonyloxybenzoyl chloride 112726-05-3P 129281-20-5P 145163-43-5P, 4-Methoxycarbonyloxybiphenyl-4'-carboxylic acid 151419-76-0P, 4-(10-Undecen-1-yloxy)biphenyl-4'-carboxylic acid 197500-87-1P 360794-67-8P 360794-68-9P
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(mesogen synthesis; synthesis of carbosilane ferroelec. liq.-cryst. dendrimers)

IT 304695-27-0P 304695-28-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(mesogen; synthesis of carbosilane ferroelec. liq.-cryst. dendrimers)

IT 333720-10-8P 360794-69-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**silylated** mesogen; synthesis of carbosilane ferroelec. liq.-cryst. dendrimers)

IT 175168-00-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of carbosilane ferroelec. liq.-cryst. dendrimers)

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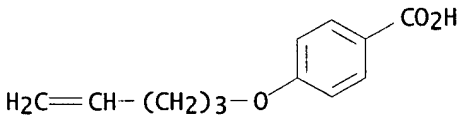
L111 ANSWER 5 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:94699 HCAPLUS
DOCUMENT NUMBER: 134:281417
TITLE: Synthesis and photoinitiated polymerization of nematic liquid-crystalline diepoxides
AUTHOR(S): Schnurpfeil, Gunter; Harder, Andreas; Schroder, Hendrik; Wohrle, Dieter; Hartwig, Andreas; Hannemann, Otto-Diedrich
CORPORATE SOURCE: Universitat Bremen, Fachbereich 2, Institut fur Organische und Makromolekulare Chemie, Bremen, 28334, Germany
SOURCE: Macromolecular Chemistry and Physics (2001), 202(1), 180-187
CODEN: MCHPES; ISSN: 1022-1352
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English

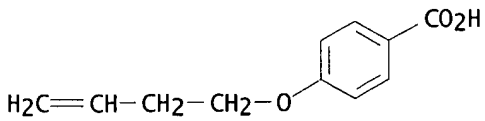
AB Various liq. cryst. bifunctional sym. and unsym. substituted diepoxides based on the 4-(.omega.-oxiranyl-alkoxy)-benzoic acid 4-(.omega.-oxiranyl-alkoxy)-Ph esters were synthesized. By modification of the length of the flexible alkylene chains, the phase transition temp. from the cryst. into the liq. cryst. state could be adjusted between 40.degree. and 90.degree.. The phase transition behavior of the monomers was examd. by DSC. These diepoxides are capable to undergo photoinduced polymn. in the presence of a cationic photoinitiator with intramol. photosensitization in the liq. cryst. phase as well as in the isotropic phase. The photoinduced polymn. was monitored by RTIR (real time IR spectroscopy). For most monomers the rate consts. for polymn. are higher in the liq. cryst. state compared to the isotropic melt. A polymer network with liq. cryst. superstructure is formed if the polymn. of the monomers is carried out in the liq. cryst. phase. No glass-transition is measurable for the crosslinked materials, and the gel content is about 96%. Although the polymers are highly crosslinked, they are not brittle at all.

IT **14142-82-6P 115595-27-2P 115595-28-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; synthesis and photoinitiated polymn. of nematic liq.-cryst. diepoxides)

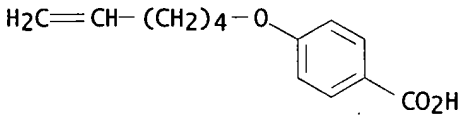
RN 14142-82-6 HCAPLUS
CN Benzoic acid, 4-(4-pentenyloxy)- (9CI) (CA INDEX NAME)



RN 115595-27-2 HCAPLUS
CN Benzoic acid, 4-(3-butenyloxy)- (9CI) (CA INDEX NAME)



RN 115595-28-3 HCAPLUS
CN Benzoic acid, 4-(5-hexenyloxy)- (9CI) (CA INDEX NAME)



CC 37-2 (Plastics Manufacture and Processing)
Section cross-reference(s): 35, 75
ST diepoxide liq cryst prepn photopolymn; phase transition diepoxide liq cryst
IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(epoxy-polyester-, liq. cryst.; synthesis and photoinitiated polymn. of nematic liq.-cryst. diepoxides)
IT Polyesters, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(epoxy-polyether-, liq. cryst.; synthesis and photoinitiated polymn. of nematic liq.-cryst. diepoxides)
IT **Crosslinking**
Crosslinking catalysts
Crosslinking kinetics
(photochem.; synthesis and photoinitiated polymn. of nematic liq.-cryst. diepoxides)
IT Epoxy resins, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyester-polyether-, liq. cryst.; synthesis and photoinitiated polymn. of nematic liq.-cryst. diepoxides)
IT Liquid crystals
Liquid crystals, polymeric
(synthesis and photoinitiated polymn. of nematic liq.-cryst. diepoxides)
IT Phase transition
Polymer morphology
(synthesis, properties, and photoinitiated polymn. of nematic liq.-cryst. diepoxides)
IT **14142-82-6P** 28084-48-2P **115595-27-2P**
115595-28-3P 146063-24-3P 153881-38-0P 291752-51-7P
333721-93-0P 333721-94-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; synthesis and photoinitiated polymn. of nematic liq.-cryst. diepoxides)
IT 146063-25-4P 153881-40-4P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(liq. cryst., monomer; synthesis and photoinitiated polymn. of nematic liq.-cryst. diepoxides)
IT 291752-52-8P 333721-95-2P 333721-96-3P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(liq. cryst.; synthesis and photoinitiated polymn. of nematic liq.-cryst. diepoxides)
IT 146268-28-2P 291752-57-3P 333721-97-4P 333721-98-5P 333721-99-6P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(liq. cryst.; synthesis and photoinitiated polymn. of nematic

liq.-cryst. diepoxides)
IT 321659-42-1
RL: CAT (Catalyst use); USES (Uses)
(photoinitiator; synthesis and photoinitiated polymn. of nematic liq.-cryst. diepoxides)
IT 99-96-7, 4-Hydroxybenzoic acid, reactions 106-95-6, Allyl bromide, reactions 120-47-8, Ethyl 4-hydroxybenzoate 123-31-9, Hydroquinone, reactions 1119-51-3, 5-Bromo-1-pentene 2695-47-8, 6-Bromo-1-hexene 5162-44-7, 4-Bromo-1-butene
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; synthesis and photoinitiated polymn. of nematic liq.-cryst. diepoxides)
IT 6411-34-3P 85234-58-8P 118909-86-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and photoinitiated polymn. of nematic liq.-cryst. diepoxides)
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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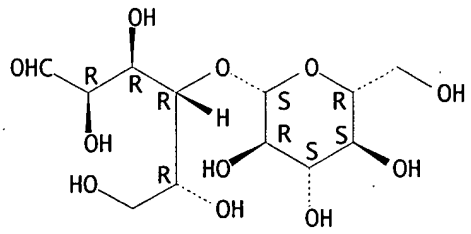
L111 ANSWER 6 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:818567 HCAPLUS
DOCUMENT NUMBER: 134:143854
TITLE: Self-Assembly of .beta.-Glucosidase and D-Glucose-Tethering Zeolite Crystals into Fibrous Aggregates
AUTHOR(S): Lee, Goo Soo; Lee, Yun-Jo; Choi, So Yeun; Park, Yong Soo; Yoon, Kyung Byung
CORPORATE SOURCE: Center for Microcrystal Assembly and Department of Chemistry, Sogang University, Seoul, 121-742, S. Korea
SOURCE: Journal of the American Chemical Society (2000), 122(49), 12151-12157
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 134:143854

AB .beta.-Glucosidase and D-glucose-tethering micrometer-sized zeolite crystals self-assemble into thin (2-20 .mu.m) and very long (>1 cm) fibrous aggregates in water. The process proceeds at a faster rate in a buffer soln. of pH 4.8 at which the enzymic activity is highest. The zeolite and enzyme remain intact within the fibrous material. Furthermore, the enzymic activity of .beta.-glucosidase is preserved even after they are kept in water for more than 6 mo at room temp. With the zeolite to enzyme wt. ratio of 5, all the zeolite crystals are buried within the round fibrils which consist of either a single strand or helical double strands. Upon increasing the ratio to 10, clusters of unburied zeolite crystals appear on the exterior of the fibrils, while narrow flat fibers with smooth surfaces are formed upon decreasing the ratio to 2.5. The process is proposed to initiate by the tight binding between the zeolite-bound D-glucose moieties and .beta.-glucosidase followed by crystn. of the enzyme over the zeolite-bound enzyme monolayer. This report thus reveals a novel behavior of .beta.-glucosidase and demonstrates an unprecedented phenomenon that an enzyme and its substrate-tethering inorg. crystals self-assemble into structured aggregates.

IT **528-50-7**, D-Cellobiose **2492-87-7**, p-Nitrophenyl .beta.-D-glucopyranoside
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(self-assembly of .beta.-glucosidase and D-glucose-tethering zeolite crystals into fibrous aggregates)

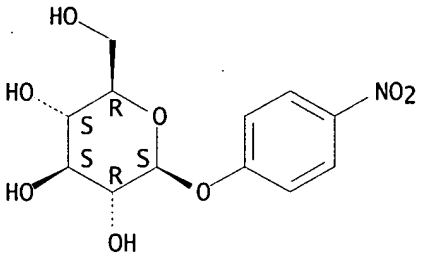
RN 528-50-7 HCAPLUS
CN D-Glucose, 4-O-.beta.-D-glucopyranosyl- (6CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



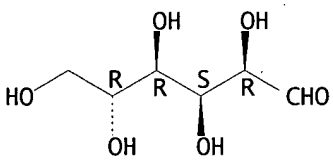
RN 2492-87-7 HCAPLUS
CN .beta.-D-Glucopyranoside, 4-nitrophenyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

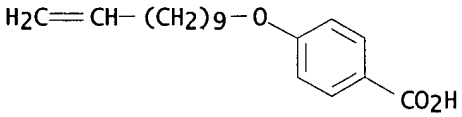


IT **50-99-7**, D-Glucose, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(self-assembly of .beta.-glucosidase and D-glucose-tethering zeolite crystals into fibrous aggregates)
RN 50-99-7 HCAPLUS
CN D-Glucose (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **59100-95-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(self-assembly of .beta.-glucosidase and D-glucose-tethering zeolite crystals into fibrous aggregates)
RN 59100-95-7 HCAPLUS
CN Benzoic acid, 4-(10-undecenyloxy)- (9CI) (CA INDEX NAME)



CC 7-8 (Enzymes)
Section cross-reference(s): 33
ST glucosidase glucose zeolite self assembly fiber
IT Immobilization, biochemical
(enzyme; self-assembly of .beta.-glucosidase and D-glucose-tethering zeolite crystals into fibrous aggregates)
IT A zeolites
Zeolite ZSM-5
RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)

(reaction products with glucose trimethoxysilyl deriv.; self-assembly of .beta.-glucosidase and D-glucose-tethering zeolite crystals into fibrous aggregates)

IT Crystal growth
(self-assembly of .beta.-glucosidase and D-glucose-tethering zeolite crystals into fibrous aggregates)

IT A zeolites
Zeolite ZSM-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(self-assembly of .beta.-glucosidase and D-glucose-tethering zeolite crystals into fibrous aggregates)

IT 9001-22-3, .beta.-Glucosidase
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)
(self-assembly of .beta.-glucosidase and D-glucose-tethering zeolite crystals into fibrous aggregates)

IT **528-50-7**, D-Cellobiose **2492-87-7**, p-Nitrophenyl .beta.-D-glucopyranoside
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(self-assembly of .beta.-glucosidase and D-glucose-tethering zeolite crystals into fibrous aggregates)

IT **50-99-7**, D-Glucose, reactions 123-08-0, 4-Hydroxybenzaldehyde 2487-90-3, Trimethoxysilane 7766-50-9, 11-Bromo-1-undecene
RL: RCT (Reactant); RACT (Reactant or reagent)
(self-assembly of .beta.-glucosidase and D-glucose-tethering zeolite crystals into fibrous aggregates)

IT 13100-46-4P 37074-90-1P **59100-95-7P** 110458-66-7P 324047-51-0P 324047-52-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(self-assembly of .beta.-glucosidase and D-glucose-tethering zeolite crystals into fibrous aggregates)

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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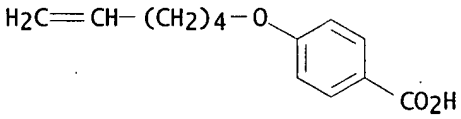
L111 ANSWER 7 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:667704 HCAPLUS
DOCUMENT NUMBER: 133:351364
TITLE: A Simple and Versatile Synthetic Route for the Preparation of Main-Chain, Liquid-Crystalline Elastomers
AUTHOR(S): Donnio, Bertrand; Wermter, Hendrik; Finkelmann, Heino
CORPORATE SOURCE: Institut fuer Makromolekulare Chemie, Albert-Ludwigs Universitaet, Freiburg, D-79104, Germany
SOURCE: Macromolecules (2000), 33(21), 7724-7729
CODEN: MAMOBX; ISSN: 0024-9297
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A new synthetic concept has been successfully used for the prepn. of main-chain, liq.-cryst. elastomers (MC-LCEs). This approach consists of a one-step, platinum-catalyzed hydrosilylation between a low molar mass divinyl nematogen and a mixt. of 1,1,3,3-tetramethyldisiloxane and 2,4,6,8-tetramethylcyclotetrasiloxane (in the appropriate equimolar amt.), the disiloxane being used for the polymer chain extension and the tetrasiloxane as the cross-linker. Three new MC-LCEs were prepd. accordingly for which either the mesogenic unit or the crosslinking d. was changed, further proving the versatility of the method. The mesomorphic properties include smectic C (SC) and nematic (N) phases as characterized by polarized optical microscopy (POM), differential scanning calorimetry (DSC), and X-ray diffraction (XRD).

IT **115595-28-3**, 4-[Hex-5-enyloxy]benzoic acid
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(prepn. and characterization of main-chain, liq.-cryst. elastomers)
RN 115595-28-3 HCAPLUS
CN Benzoic acid, 4-(5-hexenyloxy)- (9CI) (CA INDEX NAME)



CC 39-4 (Synthetic Elastomers and Natural Rubber)
Section cross-reference(s): 35, 75
ST elastomer liq crystal disiloxane chain extension; platinum catalyzed **hydrosilylation** tetramethyldisiloxane tetramethylcyclotetrasiloxane vinyl nematogen
IT **Hydrosilylation** catalysts
(dichloro(1,5-cyclooctadiene)platinum; prepn. and characterization of main-chain, liq.-cryst. elastomers)
IT Crystal structure
Liquid crystals, polymeric
(prepn. and characterization of main-chain, liq.-cryst. elastomers)
IT Rubber, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and characterization of main-chain, liq.-cryst. elastomers)
IT Molecular structure-property relationship
(thermal; prepn. and characterization of main-chain, liq.-cryst. elastomers)
IT 12080-32-9, Dichloro(1,5-cyclooctadiene)platinum

RL: CAT (Catalyst use); USES (Uses)
(prepn. and characterization of main-chain, liq.-cryst. elastomers)
IT 2370-88-9DP, 2,4,6,8-Tetramethylcyclotetrasiloxane, **hydrosilylation** product with vinyl-contg. polyester liq. crystal 3277-26-7DP, 1,1,3,3-Tetramethyldisiloxane, **hydrosilylation** product with vinyl-contg. polyester liq. crystal 103493-56-7P, 4-(Hex-5-enyloxy)phenol 153881-38-0P 188639-02-3P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and characterization of main-chain, liq.-cryst. elastomers)
IT 95-71-6, 2-Methyl-hydroquinone **115595-28-3**, 4-[Hex-5-enyloxy]benzoic acid
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(prepn. and characterization of main-chain, liq.-cryst. elastomers)
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

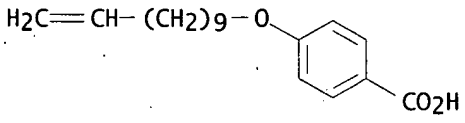
=> d ibib abs hitstr ind 8

L111 ANSWER 8 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:749986 HCAPLUS
DOCUMENT NUMBER: 132:108431
TITLE: Partially deuterated side-chain liquid crystalline monomers and polymers: characterization and order by 2H NMR
AUTHOR(S): Catalanoa, D.; Chiellini, E.; Chiezzi, L.; Fodor-Csorba, K.; Galli, G.; Gacs-Baitz, E.; Holly, S.; Veracini, C. A.
CORPORATE SOURCE: Dipartimento di Chimica e Chimica Industriale, Universita di Pisa, Pisa, 56126, Italy
SOURCE: Molecular Crystals and Liquid Crystals Science and Technology, Section A: Molecular Crystals and Liquid Crystals (1999), 336, 111-122
CODEN: MCLCE9; ISSN: 1058-725X
PUBLISHER: Gordon & Breach Science Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Two partially deuterated liq. cryst. monomer precursors (R)-4-[(2-Chloropropyl)oxycarbonyl]phenyl 4-(10-undecenyloxy)benzoate-d4 (I), (R)-4-[(2-methylpropyl)oxycarbonyl]phenyl 4-(10-undecenyloxy)benzoate-d4 (II), and polysiloxanes from poly(methylhydrogensiloxane) deriv. contg. the precursor moiety in the side-chain were prepd. The principal order parameter and biaxiality of the monomers were detd. from 1H and 2H NMR spectra; the fully protonated ring was slightly more oriented than the partially deuterated one, the two rings forming an angle of 11-120 degrees. The 2H orientational order of the polymers showed the coexistence of different phases over certain temp. ranges; the more oriented phase and the less oriented phase were in approx. 1:1 ratio at 100.degree.. On cooling, this ratio increased progressively and became 4:1 at 40.degree., this effect is due to a diln. effect of the non-mesogenic units. The orientational order of the side chain mesogens was evaluated from the quadrupolar splittings and by assuming the same mol. structure and biaxiality as for the monomers.

IT **59100-95-7P**, 4-(10-Undecenyloxy)benzoic acid
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; temp. dependent orientational order and phase structure of partially deuterated **chiral** liq. cryst. as side-chain on polysiloxane studied by 2H NMR)

RN 59100-95-7 HCAPLUS
CN Benzoic acid, 4-(10-undecenyloxy)- (9CI) (CA INDEX NAME)



CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36, 75

ST **chiral** chloropropyloxycarbonyl phenylundecenyloxy benzoate side chain polysiloxane; methylpropyloxycarbonyl phenylundecenyloxy benzoate **chiral** deuterated side chain; liq cryst polysiloxane **chiral** side chain orientational order

IT Polysiloxanes, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(chloro- or methyl-propyloxycarbonylphenyl undecenyloxy benzoates, deuterated; temp. dependent orientational order and phase structure of partially deuterated **chiral** liq. cryst. as side-chain on polysiloxane studied by 2H NMR)

IT **Polymer chains**
(orientational order; temp. dependent orientational order and phase structure of partially deuterated **chiral** liq. cryst. as side-chain on polysiloxane studied by 2H NMR)

IT Polymer morphology
(phase; temp. dependent orientational order and phase structure of partially deuterated **chiral** liq. cryst. as side-chain on polysiloxane studied by 2H NMR)

IT NMR (nuclear magnetic resonance)
(quadrupolar splitting; temp. dependent orientational order and phase structure of partially deuterated **chiral** liq. cryst. as side-chain on polysiloxane studied by 2H NMR)

IT **Polymer chains**
(side; temp. dependent orientational order and phase structure of partially deuterated **chiral** liq. cryst. as side-chain on polysiloxane studied by 2H NMR)

IT Liquid crystals, polymeric
Orientational order
(temp. dependent orientational order and phase structure of partially deuterated **chiral** liq. cryst. as side-chain on polysiloxane studied by 2H NMR)

IT 255845-61-5P 255845-62-6DP, reaction products with poly(methylhydrogensiloxane)
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**chiral** side chain; temp. dependent orientational order and phase structure of partially deuterated **chiral** liq. cryst. as side-chain on polysiloxane studied by 2H NMR)

IT 9004-73-3DP, Methylsilanediol homopolymer, sru, reaction products with chloro- or methyl-propyloxycarbonylphenyl undecenyloxy benzoates
49718-23-2DP, Poly(methylsilanediol), reaction products with chloro- or methyl-propyloxycarbonylphenyl undecenyloxy benzoates
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(**chiral**, partially deuterated; temp. dependent orientational order and phase structure of partially deuterated **chiral** liq. cryst. as side-chain on polysiloxane studied by 2H NMR)

IT 15552-32-6P, 4-(Ethoxycarbonyloxy)benzoic acid **59100-95-7P**, 4-(10-Undecenyloxy)benzoic acid 115146-67-3P, (R)-2-Chloropropyl 4-hydroxybenzoate 189076-28-6P, (R)-2-Chloropropyl 4-(ethoxycarbonyloxy)benzoate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; temp. dependent orientational order and phase structure of partially deuterated **chiral** liq. cryst. as side-chain on polysiloxane studied by 2H NMR)

IT 255845-61-5DP, reaction products with poly(methylhydrogensiloxane)
255845-62-6DP, reaction products with poly(methylhydrogensiloxane)
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(temp. dependent orientational order and phase structure of partially deuterated **chiral** liq. cryst. as side-chain on polysiloxane studied by 2H NMR)

IT 79-37-8, Oxalyl chloride 99-96-7, 4-Hydroxybenzoic acid, reactions
541-41-3, Ethyl chloroformate 7766-50-9, 1-Bromo-10-undecene
7789-20-0, Water-d2 37493-14-4, (R)-(-)-2-Chloro-1-propanol
RL: RCT (Reactant); RACT (Reactant or reagent)

(temp. dependent orientational order and phase structure of partially deuterated **chiral** liq. cryst. as side-chain on polysiloxane studied by 2H NMR)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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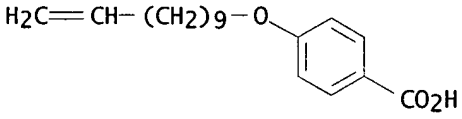
L111 ANSWER 9 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:801387 HCAPLUS
DOCUMENT NUMBER: 130:168742
TITLE: Ferroelectric liquid crystalline polymers
AUTHOR(S): Vargha, Viktoria; Fodor-Csorba, Katalin; Pozsgay, Andras Gyorgy
CORPORATE SOURCE: Budapesti Muszaki Egyetem, Muanyag-es Gumiipari Tanszek, Magyar Tudomanyos Akademia Kemiai Kutatokozpont Kemiai Intezet, Hung.
SOURCE: Muanyag es Gumi (1998), 35(11), 323-330
CODEN: MUGUAO; ISSN: 0027-2914
PUBLISHER: Gepipari Tudomanyos Egyesulet
DOCUMENT TYPE: Journal
LANGUAGE: Hungarian

AB Ferroelec. liq. cryst. polymers (FLCP) are comb-like polymers contg. the mesogen groups, responsible for ferroelec. liq. cryst. properties, in the side chain. According to the structure of the backbone, polyacrylates, polymethacrylates, polyethers, poly(vinyl ether)s, poly(vinyl esters), and polysiloxanes can be distinguished. As the temps. of phase transition of polysiloxanes are in room temp. range, they are of highest practical importance for ferroelec. display applications. For hydrosililation poly(Me hydrosiloxane) has been selected. As monomeric compd. for hydrosililation the (S)-(-)-4-(2-methylbutoxyphenyl) 4'-(10-undecenyloxy)benzoate has been prepd. in five reaction steps. All the intermediates during monomer synthesis were of high purity, the purity of the final product, was 60%.

IT **59100-95-7P**, 4-(10-Undecenyloxy)benzoic acid
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(mesogen synthesis; prepn. of ferroelec. liq. cryst. polymers by hydrosilation)
RN 59100-95-7 HCAPLUS
CN Benzoic acid, 4-(10-undecenyloxy)- (9CI) (CA INDEX NAME)



CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 75
ST ferroelec liq cryst polysiloxane synthesis hydrosilation
IT **Hydrosilylation**
Liquid crystals, polymeric
(prepn. of ferroelec. liq. cryst. polymers by hydrosilation)
IT Polysiloxanes, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of ferroelec. liq. cryst. polymers by hydrosilation)
IT 98-59-9, Tosyl chloride 99-96-7, reactions 112-43-6, 10-Undecenyl alcohol 123-31-9, 1,4-Benzenediol, reactions 137-32-6 1565-80-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(mesogen synthesis; prepn. of ferroelec. liq. cryst. polymers by hydrosilation)
IT 7766-50-9P, 11-Bromo-1-Undecene 38261-81-3P, (S)-2-Methylbutyl tosylate **59100-95-7P**, 4-(10-Undecenyloxy)benzoic acid 84452-60-8P,

2-Methylbutyl 4-hydroxybenzoate 95880-51-6P, p-[(S)-2-Methylbutoxy]phenol
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(mesogen synthesis; prepn. of ferroelec. liq. cryst. polymers by hydrosilation)

IT 117529-63-2P, (S)-4-(2-Methylbutoxy)phenyl 4'-(10-undecenyloxy)benzoate 131075-25-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(mesogen; prepn. of ferroelec. liq. cryst. polymers by hydrosilation)

IT 9004-73-3DP, Methylsilanediol homopolymer, sru, hydrosilation products 49718-23-2DP, Methylsilanediol homopolymer, hydrosilation products
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of ferroelec. liq. cryst. polymers by hydrosilation)

IT 117529-63-2DP, (S)-4-(2-Methylbutoxy)phenyl 4'-(10-undecenyloxy)benzoate, reaction products with poly(Me hydrogen siloxane) 131075-25-7DP, reaction products with poly(Me hydrogen siloxane)
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of ferroelec. liq. cryst. polymers by hydrosilation)

=> d ibib abs hitstr ind 10

L111 ANSWER 10 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:618681 HCAPLUS
DOCUMENT NUMBER: 129:277585
TITLE: Chiral compounds, their synthesis, the supported compounds, and their use in asymmetric synthesis or in optical resolution
INVENTOR(S): Duval, Raphael; Leveque, Hubert
PATENT ASSIGNEE(S): Institut Francais du Petrole, Fr.; Chiralsep S.a.r.l.
SOURCE: Eur. Pat. Appl., 21 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

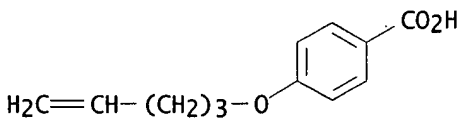
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 864586	A2	19980916	EP 1998-400501	19980303
EP 864586	A3	19990120		
EP 864586	B1	20020403		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
FR 2760752	A1	19980918	FR 1997-3076	19970314
AT 215520	E	20020415	AT 1998-400501	19980303
ES 2175630	T3	20021116	ES 1998-400501	19980303
AU 9858322	A1	19980917	AU 1998-58322	19980311
AU 744412	B2	20020221		
CA 2230143	AA	19980914	CA 1998-2230143	19980313
NO 9801128	A	19980915	NO 1998-1128	19980313
JP 11043447	A2	19990216	JP 1998-65358	19980316
US 6342592	B1	20020129	US 1998-39266	19980316

PRIORITY APPLN. INFO.: FR 1997-3076 A 19970314
OTHER SOURCE(S): MARPAT 129:277585

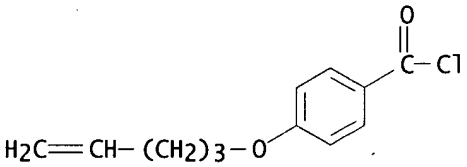
AB A bifunctional alkenyl(aryl)oxyaryl compd. (RCH:CHYO)nXQ [Q = functional group reactive towards active H; R = H, OH, alkyl, alkoxy, (un)substituted aryl; X = arom. residue; Y = C>1 alkylene, arylene; n = 1-20] is treated with a chiral alc., amine, or mercaptan (or a precursor thereof) to give the desired product. Thus, 4-CH2:CH(CH2)3OC6H4CO2H was prepd. and converted to 4-CH2:CH(CH2)3OC6H4NCO via the azide. 4-CH2:CHCH2OC6H4NCO reacted with microcryst. **cellulose** in the presence of 4-(dimethylamino)pyridine to give the **cellulose** tricarbamate deriv., which then reacted with mercaptopropylated SiO2 to give a chromatog. substrate.

IT **14142-82-6P**, 4-(4-Pentenyloxy)benzoic acid **14142-84-8P** **213599-37-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of chiral chromatog. substrates)

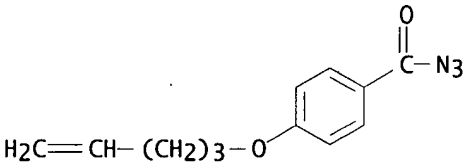
RN 14142-82-6 HCAPLUS
CN Benzoic acid, 4-(4-pentenyloxy)- (9CI) (CA INDEX NAME)



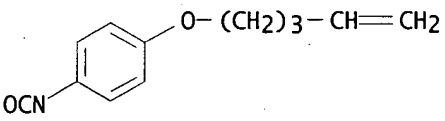
RN 14142-84-8 HCAPLUS
CN Benzoyl chloride, 4-(4-pentenyloxy)- (9CI) (CA INDEX NAME)



RN 213599-37-2 HCAPLUS
CN Benzoyl azide, 4-(4-pentenyloxy)- (9CI) (CA INDEX NAME)



IT **213599-38-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of chiral chromatog. substrates)
RN 213599-38-3 HCAPLUS
CN Benzene, 1-isocyanato-4-(4-pentenyloxy)- (9CI) (CA INDEX NAME)



IC ICM C08B037-00
ICS C08B015-08; B01D015-08; C07B057-00
CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)
Section cross-reference(s): 21, 66
ST chiral chromatog substrate **cellulose** carbamate
IT **Chromatographic stationary phases**
(chiral; prepn. of chiral chromatog. substrates)
IT Resolution (separation)
(chromatog.; prepn. of chiral chromatog. substrates)
IT **Asymmetric synthesis and induction**
(prepn. of chiral chromatog. substrates)
IT 99-76-3 1119-51-3, 5-Bromo-1-pentene 2487-97-0, 4-(Allyloxy)phenyl isocyanate 54132-75-1, 3,5-Dimethylphenyl isocyanate
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of chiral chromatog. substrates)
IT 4420-74-0DP, (3-Mercaptopropyl)trimethoxysilane, reaction products with silica 7631-86-9DP, Silica, reaction products with (3-mercaptopropyl)trimethoxysilane, reactions **14142-82-6P**, 4-(4-Pentenyloxy)benzoic acid **14142-84-8P 213599-37-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of chiral chromatog. substrates)

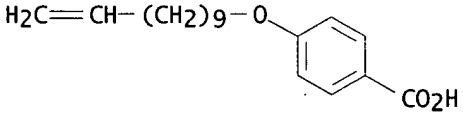
IT **213599-38-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of chiral chromatog. substrates)
IT 213702-10-4DP, reaction products with (mercaptopropyl)silica
213702-11-5DP, reaction products with (mercaptopropyl)silica
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. of chiral chromatog. substrates)

=> d ibib abs hitstr ind 11

L111 ANSWER 11 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:12558 HCAPLUS
DOCUMENT NUMBER: 126:89877
TITLE: Side-Chain Liquid-Crystalline Polysiloxanes via Anionic Polymerization: (n-Undecyloxyarenecarboxylic Acid Mesogens Linked to Poly(dimethylsiloxane-co-methylvinylsiloxane)
AUTHOR(S): Hempenius, Mark A.; Lammertink, Rob G. H.; Vancso, G. Julius
CORPORATE SOURCE: University of Twente, Enschede, 7500 AE, Neth.
SOURCE: Macromolecules (1997), 30(2), 266-272
CODEN: MAMOBX; ISSN: 0024-9297
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A novel, anionic route to well-defined side-chain liq.-cryst. polysiloxanes is described. The usual cationic approach to these polymers leads to polydisperse materials with uncontrolled microstructures. Ring-opening polymn. of pentamethylvinylcyclotrisiloxane yielded a poly(dimethylsiloxane-co-methylvinylsiloxane) with a low polydispersity (.hivin.Mw/.hivin.Mn = 1.16), a controlled molar mass, and a uniform distribution of pendant vinyl groups along the chain. Vinyl-contg. mesogenic mols. could be attached to the polysiloxane vinyl groups in a two-step hydrosilylation reaction by means of the coupling agent 1,1,3,3-tetramethyldisiloxane, yielding polymers with regularly spaced side groups. The flexible disiloxane link increases the mobility of the mesogenic moieties. In this study, 4-(n-undecyloxy)benzoic acid and the novel side group 4'-(n-undecyloxy)-4-biphenylcarboxylic acid were used as mesogens. The thermal behavior of the side-chain liq.-cryst. polymers was investigated by means of differential scanning calorimetry and optical microscopy.

IT **59100-95-7P**, 4-(10-Undecenyloxy)benzoic acid
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(intermediate; in prepn. of hydrosilation agents for prepn. of side-chain liq.-cryst. siloxanes contg. n-undecyloxyarenecarboxylic acid mesogens linked to poly(dimethylsiloxane-co-methylvinylsiloxane) via flexible disiloxane link)
RN 59100-95-7 HCAPLUS
CN Benzoic acid, 4-(10-undecenyloxy)- (9CI) (CA INDEX NAME)



CC 35-7 (Chemistry of Synthetic High Polymers)
ST liq cryst siloxane undecyloxyarenecarboxylic acid mesogen; anionic polymn cyclosiloxane liq cryst siloxane
IT Polymerization
(anionic; in prepn. of side-chain liq.-cryst. siloxanes contg. (n-undecyloxyarenecarboxylic acid mesogens linked to poly(dimethylsiloxane-co-methylvinylsiloxane) via flexible disiloxane link)
IT Polysiloxanes, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(liq. cryst.; prepn. of side-chain liq.-cryst. siloxanes contg. (n-undecyloxyarenecarboxylic acid mesogens linked to poly(dimethylsiloxane-co-methylvinylsiloxane) via flexible disiloxane link)

IT Polymerization
(ring-opening; in prepn. of side-chain liq.-cryst. siloxanes contg. (n-undecyloxyarenecarboxylic acid mesogens linked to poly(dimethylsiloxane-co-methylvinylsiloxane) via flexible disiloxane link)

IT Liquid crystals, polymeric
(siloxanes; side-chain liq.-cryst. siloxanes contg. (n-undecyloxyarenecarboxylic acid mesogens linked to poly(dimethylsiloxane-co-methylvinylsiloxane) via flexible disiloxane link)

IT 185531-90-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**hydrosilylation** agent; for prepn. of side-chain liq.-cryst. siloxanes contg. (n-undecyloxyarenecarboxylic acid mesogens linked to poly(dimethylsiloxane-co-methylvinylsiloxane) via flexible disiloxane link)

IT 185531-98-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(**hydrosilylation** agent; for prepn. of side-chain liq.-cryst. siloxanes contg. n-undecyloxyarenecarboxylic acid mesogens linked to poly(dimethylsiloxane-co-methylvinylsiloxane) via flexible disiloxane link)

IT **59100-95-7P**, 4-(10-Undecenyloxy)benzoic acid 123598-41-4P, Ethyl 4-(10-undecenyloxy)benzoate 164986-16-7P 178749-02-5P, p-Methoxybenzyl 4'-hydroxy-4-biphenylcarboxylate 185531-94-6P
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(intermediate; in prepn. of hydrosilation agents for prepn. of side-chain liq.-cryst. siloxanes contg. n-undecyloxyarenecarboxylic acid mesogens linked to poly(dimethylsiloxane-co-methylvinylsiloxane) via flexible disiloxane link)

IT 185532-00-7P 185532-04-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; in prepn. of mesogen model compd. for study of side-chain liq.-cryst. siloxanes contg. n-undecyloxyarenecarboxylic acid mesogens linked to poly(dimethylsiloxane-co-methylvinylsiloxane) via flexible disiloxane link)

IT 185532-05-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(model compd. mesogen; in prepn. of side-chain liq.-cryst. siloxanes contg. (n-undecyloxyarenecarboxylic acid mesogens linked to poly(dimethylsiloxane-co-methylvinylsiloxane) via flexible disiloxane link)

IT 185532-02-9P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(model compd. mesogen; in prepn. of side-chain liq.-cryst. siloxanes contg. n-undecyloxyarenecarboxylic acid mesogens linked to poly(dimethylsiloxane-co-methylvinylsiloxane) via flexible disiloxane link)

IT 18395-32-9P, Pentamethylvinylcyclotrisiloxane
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; for prepn. of side-chain liq.-cryst. siloxanes contg.

(n-undecyloxyarenecarboxylic acid mesogens linked to poly(dimethylsiloxane-co-methylvinylsiloxane) via flexible disiloxane link)

IT 95243-85-9DP, tert-butyldimethylsilyl- and trimethylsilyl-terminated, reaction products with n-undecylarenecarboxylates, hydrogenolyzates
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of side-chain liq.-cryst. siloxanes contg. (n-undecyloxyarenecarboxylic acid mesogens linked to poly(dimethylsiloxane-co-methylvinylsiloxane) via flexible disiloxane link)

IT 105-13-5, 4-Methoxybenzyl alcohol 120-47-8, Ethyl 4-hydroxybenzoate 824-94-2, 4-Methoxybenzyl chloride 3277-26-7, 1,1,3,3-Tetramethyldisiloxane 51148-67-5, 10-Undecenyl tosylate 58574-03-1, 4'-Hydroxy-4-biphenylcarboxylic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; in prepn. of hydrosilation agents for prepn. of side-chain liq.-cryst. siloxanes contg. n-undecyloxyarenecarboxylic acid mesogens linked to poly(dimethylsiloxane-co-methylvinylsiloxane) via flexible disiloxane link)

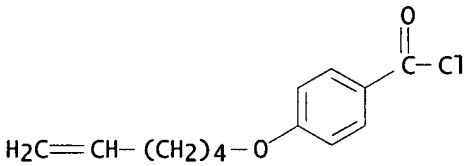
IT 124-70-9, Dichloromethylvinylsilane 1118-15-6, 1,3-Tetramethyldisiloxanediol
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; in prepn. of side-chain liq.-cryst. siloxanes contg. (n-undecyloxyarenecarboxylic acid mesogens linked to poly(dimethylsiloxane-co-methylvinylsiloxane) via flexible disiloxane link)

=> d ibib abs hitstr ind 12

L111 ANSWER 12 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:246198 HCAPLUS
DOCUMENT NUMBER: 125:12340
TITLE: Synthesis and curing of novel LC twin epoxy monomers for liquid crystal thermosets
AUTHOR(S): Shiota, Atsushi; Ober, Christopher K.
CORPORATE SOURCE: Department Materials Science and Engineering, Cornell University, Ithaca, NY, 14853-1501, USA
SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (1996), 34(7), 1291-303
CODEN: JPACEC; ISSN: 0887-624X
PUBLISHER: Wiley
DOCUMENT TYPE: Journal
LANGUAGE: English

AB This article describes the synthesis and characterization of new liq. cryst. thermosets having a twin structure. Nematic epoxy-terminated monomers based on a Ph benzoate twin mesogen connected by an alkylene spacer were synthesized for these studies. In addn., an epoxy-terminated monomer based on a 1,4-bis(benzoyloxy) phenylene mesogen was synthesized to det. the effect of the position of the mesogen on the final network structure. The diepoxy monomer made with Ph benzoate twin mesogens connected with an alkylene spacer formed a smectic-like network when cured with diamines. This smectic organization appeared even thought he diepoxy monomer itself showed only a nematic mesophase over a narrow temp. range. The presence of crosslinks at both ends of the mesogens helped to retain a uniform spacing between crosslinking sites during the curing reaction, and aided formation of the smectic layer arrangement. The epoxy monomer possessing a 1,4-bis(benzoyloxy)phenylene mesogen and two epoxidized alkylene end groups on both sides of the mesogen formed a stable nematic mesophase. However, in contrast to the twin epoxies, the latter epoxy when reacted with diamines tended to produce a nematic-like network which was retained as the crosslinking reaction proceeded.

IT **177538-73-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; synthesis and curing of novel LC twin epoxy monomers for liq. crystal thermosets)
RN 177538-73-7 HCAPLUS
CN Benzoyl chloride, 4-(5-hexenyloxy)- (9CI) (CA INDEX NAME)



CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 75
ST liq crystal twin epoxy thermoset; curing liq crystal epoxy thermoset
IT **Crosslinking**
(synthesis and curing of novel LC twin epoxy monomers for liq. crystal thermosets)
IT Epoxy resins, preparation
Liquid crystals, polymeric

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and curing of novel LC twin epoxy monomers for liq. crystal thermosets)

IT Chains, chemical
(network, synthesis and curing of novel LC twin epoxy monomers for liq. crystal thermosets)

IT 70856-68-7P 78644-15-2P 153881-42-6P 173844-49-0P 173844-50-3P
177538-73-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; synthesis and curing of novel LC twin epoxy monomers for liq. crystal thermosets)

IT 153881-44-8P 173844-51-4P 173844-52-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; synthesis and curing of novel LC twin epoxy monomers for liq. crystal thermosets)

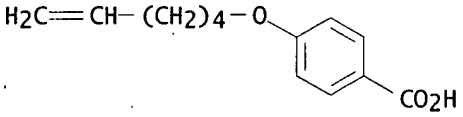
IT 173844-53-6P 173844-54-7P 173844-55-8P 173844-56-9P 173844-57-0P
173844-58-1P 173844-59-2P 177538-74-8P 177538-75-9P 177538-76-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and curing of novel LC twin epoxy monomers for liq. crystal thermosets)

=> d ibib abs hitstr ind 13

L111 ANSWER 13 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:654685 HCAPLUS
DOCUMENT NUMBER: 123:128431
TITLE: Novel Ferroelectric and Electroclinic Organosiloxane Liquid Crystals
AUTHOR(S): Naciri, J.; Ruth, J.; Crawford, G.; Shashidhar, R.; Ratna, B. R.
CORPORATE SOURCE: Center for Bio/Molecular Science and Engineering, Naval Research Laboratory, Washington, DC, 20375, USA
SOURCE: Chemistry of Materials (1995), 7(7), 1397-402
CODEN: CMATEX; ISSN: 0897-4756
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Organosiloxane ferroelec. liq. cryst. materials were synthesized, and their mesomorphic and phys. properties were characterized. The new series contains a siloxy chain attached to the hydrocarbon chain at the nonchiral end of the mol. All materials show a very low m.p. (<5.degree.) and exhibit chiral smectic A (SmA) and chiral smectic C (SmC*) mesophases. The changes in the siloxy chain length strongly affect the mesomorphic behavior and electrooptic properties of these materials. Increasing the no. of siloxy units in the chain increases the temp. range of the SmA phase, and decreases the SmA-SmC* transition temp. The electroclinic effect in the smectic A phase was characterized by a large electroclinic coeff. (.apprx.4 .degree.V-1 .mu.m-1 at T-TAC* = 2.degree.) and low switching time (<40 .mu.s). One of the materials shows one of the highest value of spontaneous polarization Ps ever reported in the SmC* phase for similar siloxane materials with Ps = 342 nC cm-2 at 25.degree..

IT **115595-28-3**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(esterification of)
RN 115595-28-3 HCAPLUS
CN Benzoic acid, 4-(5-hexenyloxy)- (9CI) (CA INDEX NAME)



CC 75-11 (Crystallography and Liquid Crystals)
Section cross-reference(s): 29, 73, 74, 76
ST organosiloxane ferroelec liq crystal
IT Electrooptical effect
(of organosiloxane ferroelec. liq. crystals)
IT Ferroelectricity
(of organosiloxane liq. crystals)
IT Piezoelectricity
(electroclinic effect, of organosiloxane liq. crystals)
IT Liquid crystals
(ferroelec., organosiloxanes)
IT Ferroelectric substances
(liq. crystals, organosiloxanes)
IT **115595-28-3**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(esterification of)

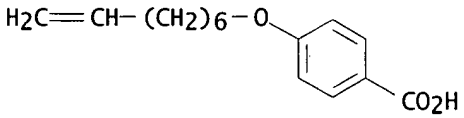
IT 101153-02-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and esterification of)
IT 151080-63-6P 166331-72-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and hydrolysis of)
IT 166331-74-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and **hydrosilylation** of)
IT 166331-75-5P 166331-76-6P 166331-77-7P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and liq. crystal and phys. properties of)
IT 166331-73-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with (decenyloxy)biphenylcarboxylic acid)
IT 166331-71-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with heptanol)
IT 119121-54-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and selective nitration of)

=> d ibib abs hitstr ind 14

L111 ANSWER 14 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1993:539921 HCAPLUS
DOCUMENT NUMBER: 119:139921
TITLE: Synthesis and characterization of novel epoxy monomers and liquid crystal thermosets
AUTHOR(S): Mallon, Joseph J.; Adams, Paul M.
CORPORATE SOURCE: Aerospace Corp., El Segundo, CA, 90245, USA
SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (1993), 31(9), 2249-60
CODEN: JPACEC; ISSN: 0887-624X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Four new epoxy monomers were synthesized and characterized as part of a program to prep. novel liq. crystal thermoset (LCT) materials. Three of the new epoxy monomers contained a biphenyl mesogen and were not liq. cryst. (LC). The remaining epoxy monomer, which contained a 1,4-dibenzoyloxybenzene mesogen, was synthesized in an overall yield of 30% and displayed a broad (83.degree.) nematic liq.-cryst. phase. The new liq.-cryst. epoxy monomer was cured at 120.degree. and postcured at 175.degree. with a stoichiometric amt. of 1,4-phenylenediamine. The thermal transitions of the resulting LCT were studied by DSC, polarized light optical microscopy, thermomech. anal., and wide angle x-ray diffraction as a function of cure time and temp. A process characterization diagram was constructed which showed that LCTs based on this new LC monomer can be processed in the liq. cryst. phase over a broad range of times and temps. Qual. agreement with previous epoxy LCT results was found, as LCT's with smectic phases and without clearing temps. were obsd. at long cure times (high crosslink densities), whereas nematic phases with clearing temps. predominated in networks at short cure times (low crosslink densities).

IT **110683-61-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with hydroquinone)
RN 110683-61-9 HCAPLUS
CN Benzoic acid, 4-(7-octenyloxy)- (9CI) (CA INDEX NAME)



CC 35-7 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 37, 75
ST epoxy monomer prepn characterization; liq crystal thermoset epoxy resin; biphenyl contg epoxy monomer; dibenzoyloxybenzene contg epoxy monomer
IT Epoxy resins, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(liq.-cryst., prepn. and characterization of phenylenediamine-crosslinked)
IT **Crosslinking**
(of phenylenebis[(epoxyoctoxy)benzoate] homopolymer with phenylenediamine, liq. crystal properties in relation to)
IT Liquid crystals
(phenylenebis[(epoxyoctoxy)benzoate], prepn. and characterization of)

IT Liquid crystals, polymeric
(phenylenebis[(epoxyoctoxy)benzoate]-phenylenediamine copolymer, prepn. and characterization of)
IT 134196-39-7P 134380-25-9P 149918-93-4P 149918-94-5P 149918-95-6P 149918-96-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and characterization of)
IT 149918-98-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and characterization of liq.-cryst.)
IT 150000-06-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and properties of crosslinked liq.-cryst.)
IT 149918-97-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with chloroperbenzoic acid)
IT **110683-61-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with hydroquinone)
IT 123-31-9, Hydroquinone, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (octenoxy)benzoic acid)
IT 2695-48-9, 8-Bromo-1-octene
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with Et hydroxybenzoate)
IT 1119-51-3, 5-Bromo-1-pentene
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with biphenol)
IT 937-14-4, m-Chloroperbenzoic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with bis(pentenoxy)biphenyl)
IT 120-47-8, Ethyl 4-hydroxybenzoate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with bromooctene)
IT 92-88-6, [1,1'-Biphenyl]-4,4'-diol
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with bromopentene)

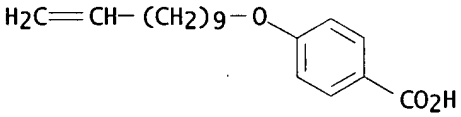
=> d ibib abs hitstr ind 15

L111 ANSWER 15 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1992:427255 HCAPLUS
DOCUMENT NUMBER: 117:27255
TITLE: Side-chain liquid crystalline polymers with silphenylene-siloxane main chains. III. Synthesis and characterization of polymers with phenyl benzoate mesogenic groups
AUTHOR(S): Itoh, Maki; Lenz, Robert W.
CORPORATE SOURCE: Polym. Sci. Eng. Dep., Univ. Massachusetts, Amherst, MA, 01003, USA
SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (1992), 30(5), 803-12
CODEN: JPACEC; ISSN: 0887-624X
DOCUMENT TYPE: Journal
LANGUAGE: English

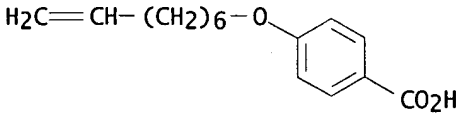
AB Side-chain liq.-cryst. (SCLC) silphenylene-siloxane polymers with a Ph benzoate mesogenic group and polymethylene spacers were prepd. and characterized, and their properties were compared with those of equiv. SCLC polymers, (SCLCP)s, with a biphenyl mesogenic group. With identical spacers and terminal substituents, the melting temps. of the former were much lower, but the isotropization temps. were lowered to a lesser extent, than those of the latter, and, consequently, a more thermally stable nematic phase was obtained for the former. Both types of SCLCPs formed nematic phases, while polymethylsiloxanes with the same side-chain mesogens exhibited smectic phases with wider temp. ranges. The lower thermal stability of the mesophases in the silphenylene-siloxane SCLCPs compared to those of the SCLC polymethylsiloxanes could be attributed to both the rigidity of the backbone and the greater sepn. of the side-chains along the main-chains of the former.

IT **59100-95-7P 110683-61-9P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and reaction of, with thionyl chloride and hexyloxyphenol)

RN 59100-95-7 HCAPLUS
CN Benzoic acid, 4-(10-undecenyloxy)- (9CI) (CA INDEX NAME)



RN 110683-61-9 HCAPLUS
CN Benzoic acid, 4-(7-octenyloxy)- (9CI) (CA INDEX NAME)



CC 35-4 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36, 75

ST mesogenic side chain silphenylene siloxane; liq crystal silphenylene siloxane

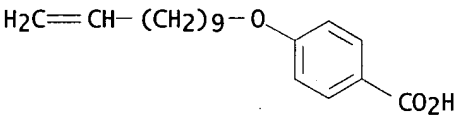
IT Crystal structure
Polymer morphology
(of side-chain liq.-cryst. silphenylene-siloxanes)
IT Liquid crystals, polymeric
(side-chain silphenylene-siloxanes, prepn. and characterization of)
IT Heat of transition
(nematic-smectic, of side-chain liq.-cryst. silphenylene-siloxanes)
IT Siloxanes and Silicones, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(polysilphenylene-, liq.-cryst., side-chain, prepn. and characterization of)
IT Polycarbosilanes
RL: SPN (Synthetic preparation); PREP (Preparation)
(polysilphenylenes, siloxane-, liq.-cryst., side-chain, prepn. and characterization of)
IT Chains, chemical
(side, structure of mesogenic, of liq.-cryst. silphenylene-siloxanes, properties in relation to)
IT Molecular structure-property relationship
(thermal stability, of side-chain liq.-cryst. silphenylene-siloxanes)
IT 86893-07-4DP, reaction products with Me hydrogen siloxanes
142109-91-9DP, reaction products with Me hydrogen siloxanes
RL: SPN (Synthetic preparation); PREP (Preparation)
(liq.-cryst., side-chain, prepn. and characterization of)
IT 86893-07-4P 142109-91-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and **hydrosilylation** of, with Me hydrogen siloxanes)
IT **59100-95-7P 110683-61-9P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(prepn. and reaction of, with thionyl chloride and hexyloxyphenol)
IT 99-96-7, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with bromoundecene)
IT 7766-50-9, 11-Bromo-1-undecene
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with hydroxybenzoic acid)
IT 7719-09-7, Thionyl chloride 18979-55-0, 4-Hexyloxyphenol
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with vinyl monomers)

=> d ibib abs hitstr ind 16

L111 ANSWER 16 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1987:599025 HCAPLUS
DOCUMENT NUMBER: 107:199025
TITLE: Synthesis and chromatographic properties of liquid crystalline polysiloxanes containing steroid substituents
AUTHOR(S): Adams, Nathan W.; Bradshaw, Jerald S.; Bayona, Jose Maria; Markides, Karin E.; Lee, Milton L.
CORPORATE SOURCE: Dep. Chem., Brigham Young Univ., Provo, UT, 84602, USA
SOURCE: Molecular Crystals and Liquid Crystals (1987), 147, 43-60
CODEN: MCLCA5; ISSN: 0026-8941
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A series of liq.-cryst. alkenyl-substituted cholesterol and related steroids were prepd. and hydrosilylated onto Me hydrogen siloxane. The polymers had a broad range of liq. crystallinity even if the starting alkenes had a narrow range. Those polymers contg. the benzoate ester linking group were not suitable for stationary phases in high temp. capillary gas chromatog. because the phases were not stable at temps. >250-270.degree.. A capillary column coated with a polymer contg. a Ph group directly attached to the steroid proved to be effective in sepg. certain polycyclic arom. hydrocarbon isomers.

IT **59100-95-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and characterization of)
RN 59100-95-7 HCAPLUS
CN Benzoic acid, 4-(10-undecenyloxy)- (9CI) (CA INDEX NAME)



CC 35-7 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36, 75
ST siloxane steroid contg liq crystal; chromatog stationary siloxane steroid contg; alkenyl cholesterol siloxane liq crystal
IT Steroids, compounds
RL: SPN (Synthetic preparation); PREP (Preparation)
(hydrosilylation products with Me hydrogen siloxanes, liq.-cryst., prepn. and chromatog. properties of)
IT Phase transition
(in liq.-cryst. siloxanes contg. steroid substituents)
IT Hydrosilylation
(of alkenyl-substituted cholesterol and related steroids, with Me hydrogen siloxanes)
IT Liquid crystals
(siloxanes contg. steroid substituents, prepn. and chromatog. properties of)
IT Siloxanes and Silicones, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(Me hydrogen, contg. steroid substituents, liq.-cryst., prepn. and chromatog. properties of)
IT **Chromatography, gas**

(**stationary phases**, of liq.-cryst. siloxanes contg. steroid substituents)

IT 83-46-5 83-48-7, Stigmasterol 2862-58-0, 5-Pregnen-3.beta.-ol
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification of, with allyloxybenzoyl chloride)

IT 57-88-5, Cholesterol, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification of, with allyloxybenzoyl chloride or vinylbenzoyl chloride)

IT 83953-73-5DP, hydrosilylation products with Me hydrogen siloxanes
111252-06-3DP, hydrosilylation products with Me hydrogen siloxanes
111252-07-4DP, hydrosilylation products with Me hydrogen siloxanes
111252-08-5DP, hydrosilylation products with Me hydrogen siloxanes
111252-09-6DP, hydrosilylation products with Me hydrogen siloxanes
111252-10-9DP, hydrosilylation products with Me hydrogen siloxanes
111252-11-0DP, hydrosilylation products with Me hydrogen siloxanes
111252-12-1DP, hydrosilylation products with Me hydrogen siloxanes
111275-92-4DP, hydrosilylation products with Me hydrogen siloxanes
111275-93-5DP, hydrosilylation products with Me hydrogen siloxanes
111310-72-6DP, hydrosilylation products with Me hydrogen siloxanes
RL: SPN (Synthetic preparation); PREP (Preparation)
(liq.-cryst., prepn. and chromatog. properties of)

IT **59100-95-7P** 76691-41-3P 83953-73-5P 111252-06-3P
111252-07-4P 111252-08-5P 111252-09-6P 111252-10-9P 111252-11-0P
111252-12-1P 111275-92-4P 111275-93-5P 111310-72-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and characterization of)

IT 512-04-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with allyloxybenzoyl chloride)

IT 80-97-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with allyloxybenzoyl chloride or vinylbenzoyl chloride)

IT 26264-62-0, Cholestanone
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with allyloxybromobenzene or (undecenyloxy)bromobenzene)

IT 25244-30-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cholestanone)

IT 1565-41-9, 4-Vinylbenzoyl chloride 36844-51-6, 4-Allyloxybenzoyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cholesterol)

IT 51148-67-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with hydroxybenzoic acid)

IT 99-96-7, 4-Hydroxybenzoic acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with undecenyl tosylate)

IT 79-37-8, Oxalyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with undecenyloxybenzoic acid)

```
=> d que l71
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L23          881 SEA FILE=REGISTRY ABB=ON  PLU=ON  "UNDECENYLOXY"
L24          144 SEA FILE=REGISTRY ABB=ON  PLU=ON  "DODECENYLOXY"
L25          660 SEA FILE=REGISTRY ABB=ON  PLU=ON  "OCTENYLOXY"
L26          284 SEA FILE=REGISTRY ABB=ON  PLU=ON  "HEPTENYLOXY"
L27         1561 SEA FILE=REGISTRY ABB=ON  PLU=ON  "HEXENYLOXY"
L28         1259 SEA FILE=REGISTRY ABB=ON  PLU=ON  "PENTENYLOXY"
L29         3906 SEA FILE=REGISTRY ABB=ON  PLU=ON  "BUTENYLOXY"
L30        52785 SEA FILE=REGISTRY ABB=ON  PLU=ON  "PROPENYLOXY"
L31        13924 SEA FILE=REGISTRY ABB=ON  PLU=ON  "ETHENYLOXY"
L32        18307 SEA FILE=REGISTRY ABB=ON  PLU=ON  (L22 OR L23 OR L24 OR L25 OR
                 L26 OR L27 OR L28 OR L29 OR L30 OR L31) AND PMS/CI
L33         4301 SEA FILE=REGISTRY ABB=ON  PLU=ON  L32 AND NC=2
L41        13631 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CHROMATOGRAPHIC STATIONARY
                 PHASES+PFT,NT/CT
L42        45585 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HPLC+PFT,NT/CT
L62       157857 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (SUPPORT OR PHASE)(2A)(SOLID
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L65         4890 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33
L66           11 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L65 AND (L41 OR L42)
L67           58 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L65 AND (CHIRAL? OR ENANTIOM?
                 OR STEREOCHEM? OR ASYMMETRIC?)/OBI
L68            5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L67 AND L66
L69           91 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L65(L)(SOLID OR SUPPORT OR
                 BEAD OR L62)
L70            7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L69 AND (CHIRAL? OR ENANTIOM?
                 OR STEREOCHEM? OR ASYMMETRIC?)/OBI
L71            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L70 NOT L68
```

Various alkenyl chain lengths

must be in a polymer

← 2 components

← 4890 cites for L33 polymers

2 citations

L33 cpds are polymers that have a $-O-Ak-CH=CH_2$ unit

This was an experiment. The results may not be of any use

=> d ibib abs hitstr ind l71 1-2

L71 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:670869 HCAPLUS
DOCUMENT NUMBER: 121:270869
TITLE: **Chiral** copolymers with oligosiloxane spacers for chromatographic separations
INVENTOR(S): Bradshaw, Jerald S.; Rossiter, Bryant E.; Tarbet, Bryon J.; Johnson, Deborah F.; Lee, Milton L.; Markides, Karin E.
PATENT ASSIGNEE(S): Brigham Young University, USA
SOURCE: U.S., 30 pp. Cont. -in-part of U.S. Ser. No. 612,269, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5268442	A	19931207	US 1992-878157	19920504
US 5403898	A	19950404	US 1993-163870	19931207
PRIORITY APPLN. INFO.:			US 1990-612269	19901113
			US 1992-878157	19920504

AB Chiral copolymers contg. chiral mol. grooves or cavities and oligosiloxane spacers are disclosed. The chiral portion of the copolymer is an enantiomerically enriched org. grouping, having phys. properties attributed to uniform and stereochem. possible mol. grooves or cavities, which is chem. and thermally stable to gas, liq., or supercrit. fluid chromatog. conditions and is configured such that 1 enantiomer of an enantiomeric mixt. is better able to preferentially enter such groove or cavity and interact more strongly than other enantiomers in the mixt. The chiral grouping contains methylene, phenylene, naphthylene, biphenylene, binaphthylene, cyclodextrins, cycloalkylidenes, and/or their derivs. and also includes nonmetal atoms and functional groups which act as linking agents for the org. chiral cavity-contg. moieties, e.g., ethers, thioethers, amines, carbonyls, amides, esters, sulfoxides, sulfonates, thioamides, thioesters, ureas, thioureas, carbamates, thiocarbamates, phosphines, or phosphine oxides. The use of such polymers as chiral stationary phases in anal. and preparative gas, supercrit. fluid, and liq. chromatog. sepns., and particularly for anal. of enantiomeric and other stereoisomeric mixts. of various substances, is shown.

IT **158773-68-3DP**, reaction product with 1-octene **158773-68-3P**
158773-69-4DP, reaction product with 1-octene **158773-69-4P**
158850-06-7DP, reaction product with 1-octene
158850-07-8DP, reaction product with 1-octene
RL: ANST (Analytical study); PREP (Preparation)
(prepn. of, as **stationary phase** for chromatog. sepn.)

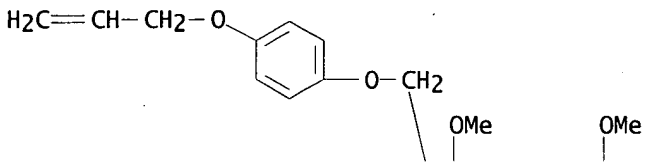
RN 158773-68-3 HCAPLUS
CN .beta.-Cyclodextrin, 6A,6B,6C,6D,6F-pentakis-O-(methoxymethyl)-2A,2B,2C,2D,2E,2F,2G,3A,3B,3C,3D,3E,3F,3G-tetradeca-O-methyl-6E,6G-bis-O-[4-(2-propenyloxy)phenyl]-, polymer with 1,1,3,3,5,5,7,7-oxamethyltetrasiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 158773-67-2

CMF C84 H134 O42

PAGE 1-A



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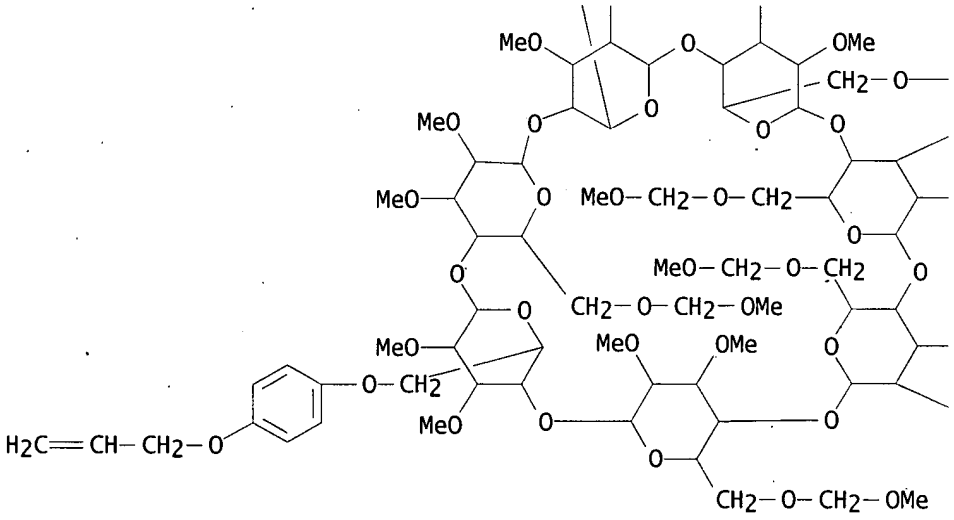
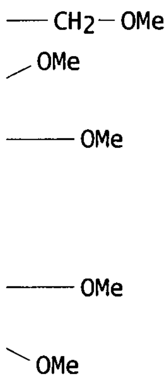
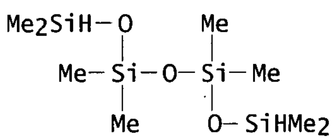


PAGE 2-B



CM 2

CRN 1000-05-1
CMF C8 H26 O3 Si4

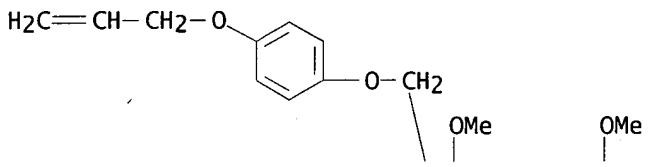


RN 158773-68-3 HCAPLUS
CN .beta.-Cyclodextrin, 6A,6B,6C,6D,6F-pentakis-O-(methoxymethyl)-2A,2B,2C,2D,2E,2F,2G,3A,3B,3C,3D,3E,3F,3G-tetradeca-O-methyl-6E,6G-bis-O-[4-(2-propenyloxy)phenyl]-, polymer with 1,1,3,3,5,5,7,7-oxamethyltetrasiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 158773-67-2
CMF C84 H134 O42

PAGE 1-A



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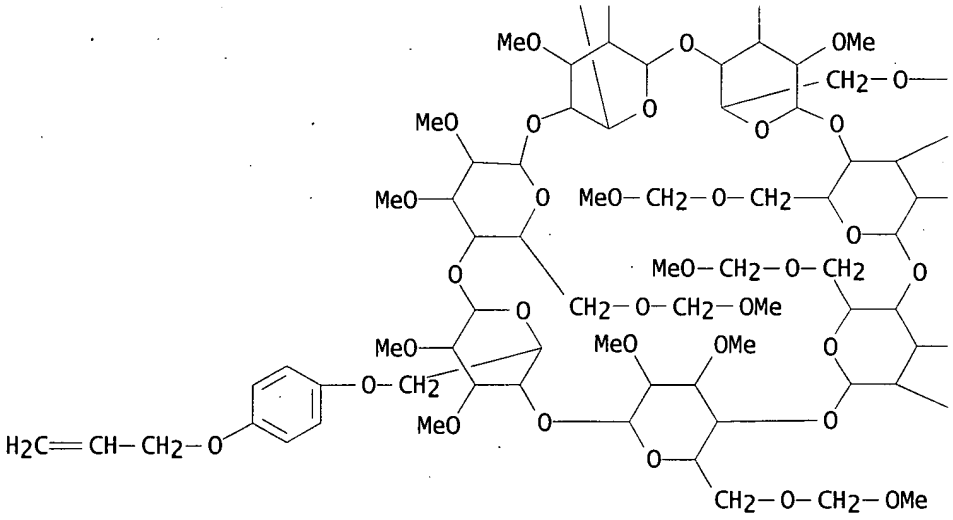
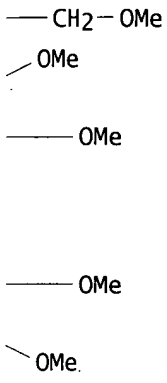
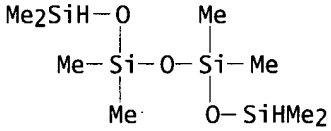




CM 2

CRN 1000-05-1
CMF C8 H26 O3 Si4

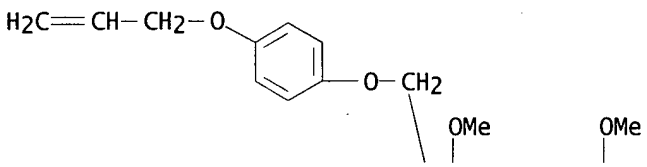


RN 158773-69-4 HCAPLUS
CN .beta.-Cyclodextrin, 6A,6B,6C,6D,6F-pentakis-O-(methoxymethyl)-2A,2B,2C,2D,2E,2F,2G,3A,3B,3C,3D,3E,3F,3G-tetradeca-O-methyl-6E,6G-bis-O-[4-(2-propenyloxy)phenyl]-, polymer with 1,1,3,3,5,5,7,7,9,9,11,11-dodecamethylhexasiloxane (9CI) (CA INDEX NAME)

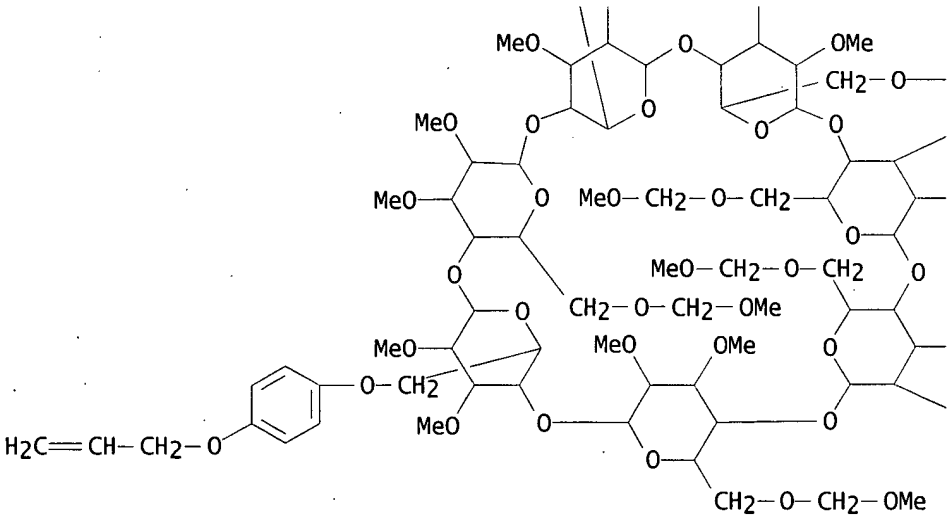
CM 1

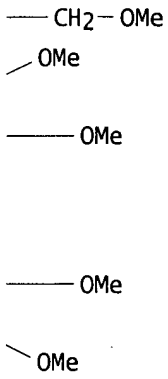
CRN 158773-67-2
CMF C84 H134 O42

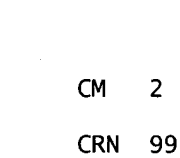
PAGE 1-A



PAGE 2-A

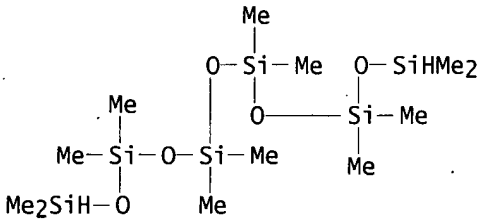






CM 2

CRN 995-82-4
CMF C12 H38 O5 Si6

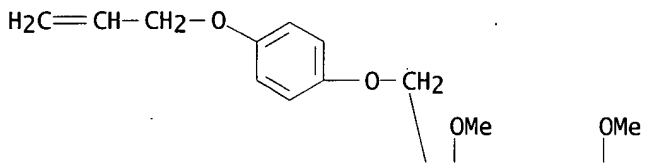


RN 158773-69-4 HCAPLUS
CN .beta.-Cyclodextrin, 6A,6B,6C,6D,6F-pentakis-O-(methoxymethyl)-2A,2B,2C,2D,2E,2F,2G,3A,3B,3C,3D,3E,3F,3G-tetradeca-O-methyl-6E,6G-bis-O-[4-(2-propenyloxy)phenyl]-, polymer with 1,1,3,3,5,5,7,7,9,9,11,11-dodecamethylhexasiloxane (9CI) (CA INDEX NAME)

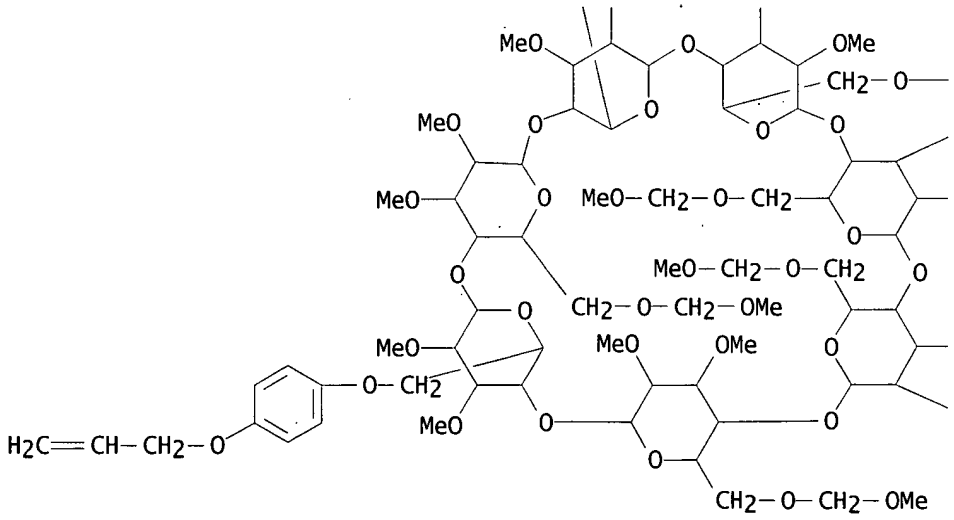
CM 1

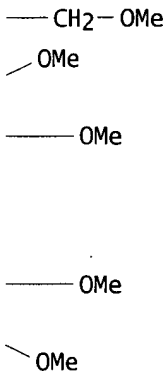
CRN 158773-67-2
CMF C84 H134 O42

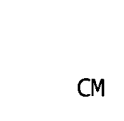
PAGE 1-A



PAGE 2-A

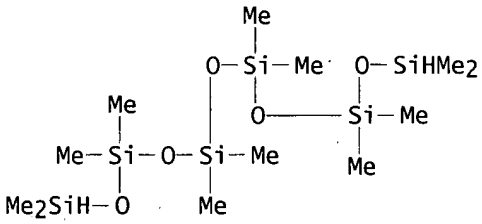






CM 2

CRN 995-82-4
CMF C12 H38 O5 Si6

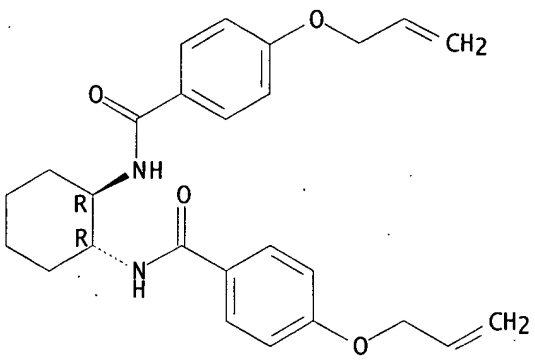


RN 158850-06-7 HCAPLUS
CN Benzamide, N,N'-1,2-cyclohexanediylbis[4-(2-propenyloxy)-, trans-, polymer with 1,1,3,3-tetramethyldisiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 158850-05-6
CMF C26 H30 N2 O4

Relative stereochemistry.



CM 2

CRN 3277-26-7
CMF C4 H14 O Si2

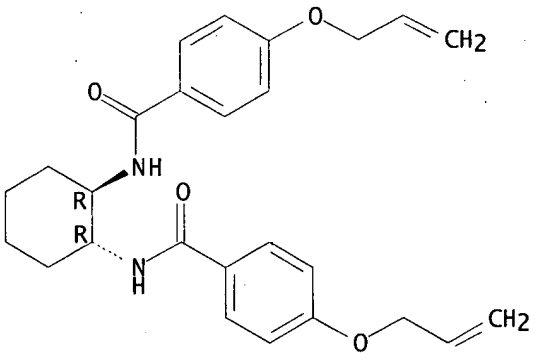
$Me_2SiH-O-SiHMe_2$

RN 158850-07-8 HCAPLUS
CN Benzamide, N,N'-1,2-cyclohexanediylbis[4-(2-propenyloxy)-, trans-, polymer with 1,1,3,3,5,5,7,7-octamethyltetrasiloxane (9CI) (CA INDEX NAME)

CM 1

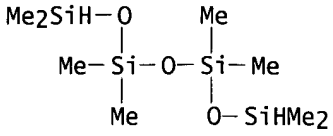
CRN 158850-05-6
CMF C26 H30 N2 O4

Relative stereochemistry.



CM 2

CRN 1000-05-1
CMF C8 H26 O3 Si4



IC ICM C08G077-04
NCL 528025000
CC 80-4 (Organic Analytical Chemistry)
Section cross-reference(s): 38, 66
ST **chiral** copolymer oligosiloxane spacer; chromatog sepn stationary phase **chiral** copolymer; **enantiomeric** mixt chromatog sepn **chiral** copolymer
IT Resolution
(chromatog., **chiral** copolymers with oligosiloxane spacers for)
IT Siloxanes and Silicones, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(polyether-, cardo; chromatog. stationary phases for sepn. of **enantiomers**)
IT 111-66-0DP, 1-Octene, reaction products with oligosiloxane-**chiral** compd. copolymers 158773-56-9P 158773-57-0P 158773-59-2DP, reaction product with 1-octene 158773-60-5P 158773-62-7DP, reaction product with 1-octene 158773-63-8P 158773-65-0DP, reaction product with 1-octene 158773-66-1P **158773-68-3DP**, reaction product with 1-octene **158773-68-3P 158773-69-4DP**, reaction product with 1-octene **158773-69-4P 158850-06-7DP**, reaction product with 1-octene **158850-07-8DP**, reaction product with 1-octene
RL: ANST (Analytical study); PREP (Preparation)
(prepn. of, as **stationary phase** for chromatog. sepn.)

L71 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:44790 HCAPLUS
DOCUMENT NUMBER: 120:44790
TITLE: Chromatographic evaluation of **chiral** (1R-trans)-N,N'-1,2-cyclohexylenebisbenzamide-oligodimethylsiloxane copolymeric stationary phases for capillary supercritical fluid chromatography
AUTHOR(S): Petersson, Patrik; Markides, Karin E.; Johnson, Deborah F.; Rossiter, Bryant E.; Bradshaw, Jerald S.; Lee, Milton L.
CORPORATE SOURCE: Dep. Anal. Chem., Uppsala Univ., Uppsala, S-751 21, Swed.
SOURCE: Journal of Microcolumn Separations (1992), 4(2), 155-62
CODEN: JMSEEJ; ISSN: 1040-7685
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A novel approach to the design of chiral stationary phases (CSPs) is illustrated by the synthesis and evaluation of selective and efficient copolymeric CSPs with alternating chiral (1R-trans)-N,N'-1,2-cyclohexylenebisbenzamide and achiral (oligodimethylsiloxane) blocks. These materials are shown to resolve a variety of chiral diols. Evaluation of the performance of one of these phases in GC and SFC suggests that SFC can produce higher resoln. because of its lower operating temp. which facilitates solute stationary phase interactions.

The influence of different chiral (position of substitution) and achiral (chain length) blocks of the copolymer on solute retention, efficiency, chiral selectivity, and resoln. were studied, as well as the reproducibility of the column prepn. method.

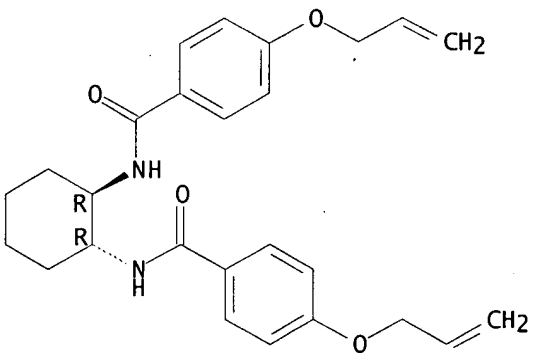
IT **135940-19-1 140715-25-9 140715-27-1 140715-29-3 140841-80-1**
RL: ANST (Analytical study)
(as **chiral stationary phase** for capillary supercrit. fluid chromatog.)

RN 135940-19-1 HCAPLUS
CN Benzamide, N,N'-1,2-cyclohexanediylbis[4-(2-propenyloxy)-, (1R-trans)-, polymer with 1,1,3,3,5,5,7,7-octamethyltetrasiloxane (9CI) (CA INDEX NAME)

CM 1

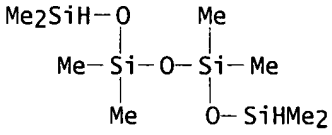
CRN 135940-18-0
CMF C26 H30 N2 O4

Absolute stereochemistry.



CM 2

CRN 1000-05-1
CMF C8 H26 O3 Si4

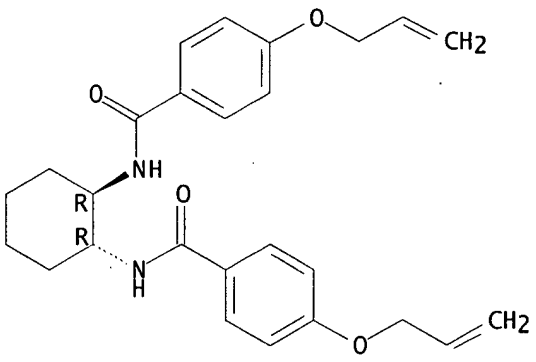


RN 140715-25-9 HCAPLUS
CN Benzamide, N,N'-1,2-cyclohexanediylbis[4-(2-propenyloxy)-, (1R-trans)-, polymer with 1,1,3,3-tetramethyldisiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 135940-18-0
CMF C26 H30 N2 O4

Absolute stereochemistry.



CM 2

CRN 3277-26-7
CMF C4 H14 O Si2

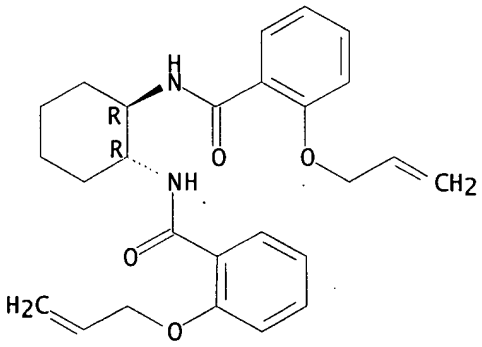
$Me_2SiH-O-SiHMe_2$

RN 140715-27-1 HCAPLUS
CN Benzamide, N,N'-1,2-cyclohexanediylbis[2-(2-propenyloxy)-, (1R-trans)-, polymer with 1,1,3,3,5,5,7,7-octamethyltetrasiloxane (9CI) (CA INDEX NAME)

CM 1

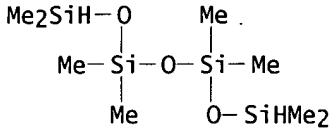
CRN 140715-26-0
CMF C26 H30 N2 O4

Absolute stereochemistry.



CM 2

CRN 1000-05-1
CMF C8 H26 O3 Si4

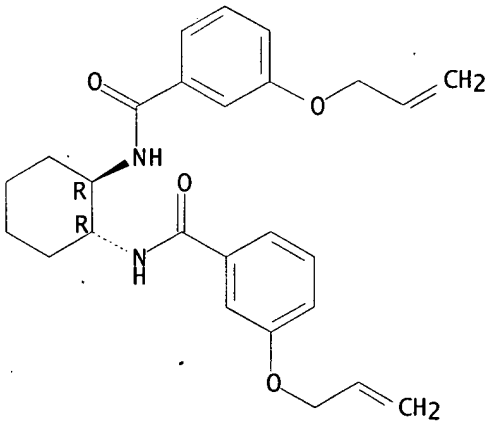


RN 140715-29-3 HCAPLUS
CN Benzamide, N,N'-1,2-cyclohexanediylbis[3-(2-propenyloxy)-, (1R-trans)-, polymer with 1,1,3,3,5,5,7,7-octamethyltetrasiloxane (9CI) (CA INDEX NAME)

CM 1

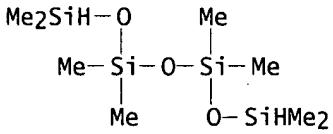
CRN 140715-28-2
CMF C26 H30 N2 O4

Absolute stereochemistry.



CM 2

CRN 1000-05-1
CMF C8 H26 O3 Si4

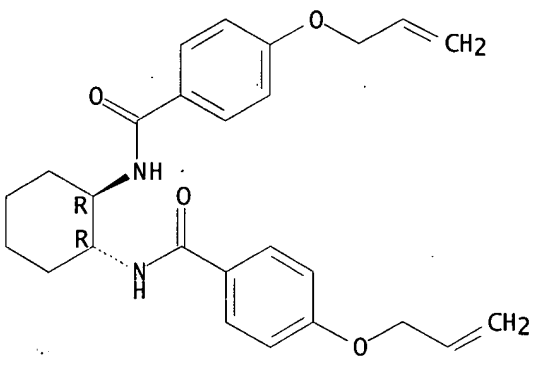


RN 140841-80-1 HCAPLUS
CN Benzamide, N,N'-1,2-cyclohexanediylbis[4-(2-propenyloxy)-, (1R-trans)-, polymer with 1,1,3,3,5,5,7,7,9,9,11,11-dodecamethylhexasiloxane (9CI) (CA INDEX NAME)

CM 1

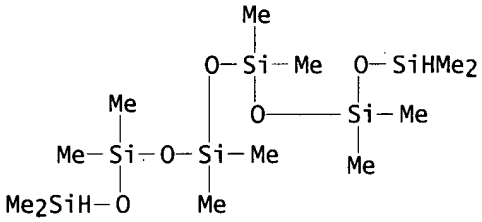
CRN 135940-18-0
CMF C26 H30 N2 O4

Absolute stereochemistry.



CM 2

CRN 995-82-4
CMF C12 H38 O5 Si6



CC 80-4 (Organic Analytical Chemistry)
ST cyclohexylenebisbenzamide oligodimethylsiloxane copolymeric stationary phase SFC; supercrit chromatog cyclohexylenebisbenzamide oligodimethylsiloxane copolymeric phase; diol resoln supercrit fluid chromatog
IT Siloxanes and Silicones, uses
RL: ANST (Analytical study); USES (Uses)
(cyclohexanediamide-contg., as **chiral** stationary phase for capillary supercrit. fluid chromatog.)
IT Glycols, analysis
RL: ANST (Analytical study)
(**enantiomeric** resoln. of, by capillary supercrit. fluid chromatog. on **chiral** cyclohexylenebisbenzamide oligodimethylsiloxane copolymeric stationary phases)
IT Resolution
(chromatog., supercrit. fluid, on **chiral** cyclohexylenebisbenzamide oligodimethylsiloxane copolymeric stationary phases)
IT **135940-19-1 140715-25-9 140715-27-1**
140715-29-3 140841-80-1 140841-81-2
RL: ANST (Analytical study)
(as **chiral stationary phase** for capillary supercrit. fluid chromatog.)
IT 57968-71-5, (.+-.)-Diethyl tartrate 91049-44-4, (.+-.)-3,3-Dimethyl-1,2-butanediol 151858-87-6 151910-43-9

RL: ANST (Analytical study); PROC (Process)
(**enantiomeric** resoln. of, by capillary supercrit. fluid chromatog. on **chiral** cyclohexylenebisbenzamide oligodimethylsiloxane copolymeric stationary phases)

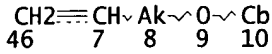
IT 87-91-2, (+)-Diethyl tartrate 13811-71-7 31612-63-2, (-)-3,3-Dimethyl-1,2-butanediol 92621-91-5, (+)-3,3-Dimethyl-1,2-butanediol 139165-60-9 151910-41-7 151910-42-8 151910-44-0
RL: ANST (Analytical study); PROC (Process)
(sepn. of, from **enantiomer** by capillary supercrit. fluid chromatog. on **chiral** cyclohexylenebisbenzamide oligodimethylsiloxane copolymeric stationary phases)

IT 130932-14-8 136031-99-7 151910-45-1 151910-46-2
RL: ANST (Analytical study); PROC (Process)
(sepn. of, from stereoisomer by capillary supercrit. fluid chromatog. on **chiral** cyclohexylenebisbenzamide oligodimethylsiloxane copolymeric stationary phases)

Looking for L39 cpds (from search) that are chiral – but may be not part of a stationary phase

KRISHNAN 09/541,690

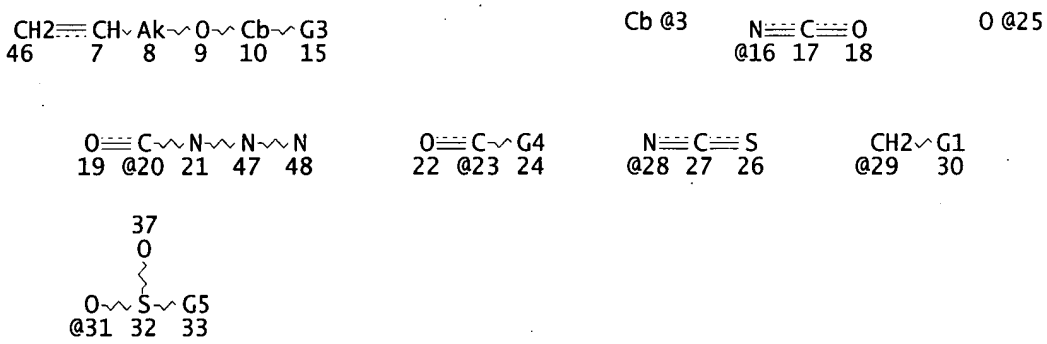
=> d que l129
L1 SCR 2004 AND 1707 AND 1838
L2 SCR 970
L3 STR



NODE ATTRIBUTES:
CONNECT IS E2 RC AT 8
CONNECT IS E2 RC AT 10
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 10
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M2 C AT 8
ECOUNT IS E6 C AT 10

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE
L4 2405 SEA FILE=REGISTRY SSS FUL L3 AND L1 AND L2
L9 STR



VAR G1=X/31
VAR G3=16/20/23/28/NH2/29
VAR G4=X/25
VAR G5=3/ME
NODE ATTRIBUTES:
CONNECT IS E2 RC AT 8
CONNECT IS E2 RC AT 10
CONNECT IS E2 RC AT 17
CONNECT IS E1 RC AT 25
CONNECT IS E2 RC AT 27
CONNECT IS E1 RC AT 37
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 3
GGCAT IS UNS AT 10
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M6 C AT 3
ECOUNT IS M2 C AT 8
ECOUNT IS E6 C AT 10

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 28

Same STR search

STEREO ATTRIBUTES: NONE

L11	49	SEA FILE=REGISTRY SUB=L4 SSS FUL L9
L12	47	SEA FILE=REGISTRY ABB=ON PLU=ON L11/COM
L39	123	SEA FILE=HCAPLUS ABB=ON PLU=ON L12
L41	13631	SEA FILE=HCAPLUS ABB=ON PLU=ON CHROMATOGRAPHIC STATIONARY PHASES+PFT,NT/CT
L42	45585	SEA FILE=HCAPLUS ABB=ON PLU=ON HPLC+PFT,NT/CT
L43	48797	SEA FILE=HCAPLUS ABB=ON PLU=ON CROSSLINKING/CT
L44	24051	SEA FILE=HCAPLUS ABB=ON PLU=ON POLYMER CHAINS+NT/CT
L45	6207	SEA FILE=HCAPLUS ABB=ON PLU=ON CHEMICAL CHAINS/CT
L47	5205	SEA FILE=HCAPLUS ABB=ON PLU=ON CHIRALITY/CT
L48	736	SEA FILE=HCAPLUS ABB=ON PLU=ON CHIRAL RECOGNITION+OLD/CT
L49	74603	SEA FILE=HCAPLUS ABB=ON PLU=ON STEREOCHEMISTRY+PFT,NT/CT
L50	2	SEA FILE=HCAPLUS ABB=ON PLU=ON L39 AND (L47 OR L48 OR L49)
L51	3	SEA FILE=HCAPLUS ABB=ON PLU=ON L39 AND (L41 OR L42)
L54	8	SEA FILE=HCAPLUS ABB=ON PLU=ON L39 AND (L44 OR L45)
L55	2	SEA FILE=HCAPLUS ABB=ON PLU=ON L54 AND (CHIRAL? OR ENANTIOM? OR STEREOCHEM? OR ASSYMETRIC OR RESOLUTION)
L56	3	SEA FILE=HCAPLUS ABB=ON PLU=ON L43 AND L39
L58	1	SEA FILE=HCAPLUS ABB=ON PLU=ON L41 AND L50
L74	9	SEA FILE=HCAPLUS ABB=ON PLU=ON L39 AND HYDROSILYLAT?/OBI
L76	109	SEA FILE=HCAPLUS ABB=ON PLU=ON L39(L)(RACT OR RCT)/RL
L77	8	SEA FILE=HCAPLUS ABB=ON PLU=ON L76 AND L74
L79	2	SEA FILE=HCAPLUS ABB=ON PLU=ON L76 AND SILYLAT?/OBI
L80	9	SEA FILE=HCAPLUS ABB=ON PLU=ON L77 OR L79
L105	412248	SEA FILE=HCAPLUS ABB=ON PLU=ON POLYSACCHARIDES+PFT,NT/CT
L106	147008	SEA FILE=HCAPLUS ABB=ON PLU=ON OLIGOSACCHARIDES+PFT,NT/CT
L107	286437	SEA FILE=HCAPLUS ABB=ON PLU=ON MONOSACCHARIDES+PFT,NT/CT
L108	2	SEA FILE=HCAPLUS ABB=ON PLU=ON L39 AND (L105 OR L106 OR L107)
L109	2	SEA FILE=HCAPLUS ABB=ON PLU=ON L39 AND (?STARCH OR ?CYCLODEXTRIN OR ?CELLULOSE OR ?DEXTRIN)
L110	3	SEA FILE=HCAPLUS ABB=ON PLU=ON (L108 OR L109)
L111	16	SEA FILE=HCAPLUS ABB=ON PLU=ON L51 OR (L55 OR L56) OR L58 OR L80 OR L110
L128	6	SEA FILE=HCAPLUS ABB=ON PLU=ON L39(L) (CHIRAL? OR ENANTIOM? OR STEREOCHEM? OR ASYMMETRIC? OR RESOLV? OR RESOLUTION)
L129	2	SEA FILE=HCAPLUS ABB=ON PLU=ON L128 NOT L111 2 cites

all the results from L51, L55-56 58, L80, L110

subtract L111 from L128 to avoid duplicates of L111

=> d ibib abs hitstr ind 1

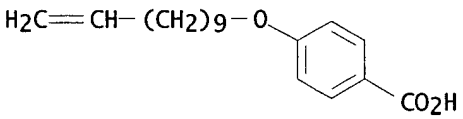
L129 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:637561 HCAPLUS
DOCUMENT NUMBER: 125:301888
TITLE: Chiral smectic liquid crystalline siloxanes
INVENTOR(S): Hsu, Chain-shu; Lin, Jhy-horung; Shih, Li-jen; Hsiue, Ging-ho
PATENT ASSIGNEE(S): National Science Council, Taiwan
SOURCE: U.S., 70 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5563230	A	19961008	US 1994-303748	19940909

PRIORITY APPLN. INFO.: US 1994-303748 19940909

AB A chiral smectic liq. cryst. polymers comprise TMS[MeSi(RR'nOArCO2Ar'OCH2CHMeEt)O]mTMS (m is 40-80; n is 1-12; R is ethylene or trimethylene; R' is methylene; Ar is -C6H4XCO2C6H4X- wherein X is chlorine or hydrogen; Ar' is phenylene or phenylenecarbonyl). The polymers are typically prepd. by hydrosilylation of hydrogen siloxanes with specified unsatd. mesogenic compds. Polymethylhydrogensiloxane was hydrosilylated with 4-((S)-2-methyl-1-butoxy)phenyl 4-(3-buten-1-yloxy)biphenyl-4'-carboxylate to give a liq. crystal polymer.

IT **59100-95-7P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(**chiral** smectic liq. cryst. siloxanes)
RN 59100-95-7 HCAPLUS
CN Benzoic acid, 4-(10-undecenyloxy)- (9CI) (CA INDEX NAME)



IC ICM C08G077-14
ICS C09K019-52; C09K019-12
NCL 528025000
CC 35-6 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 75
ST chiral smectic liq cryst siloxane
IT Siloxanes and Silicones, preparation
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(mesogenic group-contg.; chiral smectic liq. cryst. siloxanes)
IT Liquid crystals, polymeric
(chiral smectic, chiral smectic liq. cryst. siloxanes)
IT 9004-73-3DP, Methylhydrogensiloxane, reaction products with mesogenic compds. 49718-23-2DP, Methylsilanediol homopolymer, reaction products with mesogenic compds. 144512-89-0DP, reaction products with hydrogen siloxanes 144512-90-3DP, reaction products with hydrogen siloxanes 144512-91-4DP, reaction products with hydrogen siloxanes 144512-92-5DP, reaction products with hydrogen siloxanes 144512-93-6DP, reaction

products with hydrogen siloxanes 148357-84-0DP, reaction products with hydrogen siloxanes 148357-85-1DP, reaction products with hydrogen siloxanes 148357-86-2DP, reaction products with hydrogen siloxanes 183237-26-5DP, reaction products with hydrogen siloxanes 183237-27-6DP, reaction products with hydrogen siloxanes 183237-28-7DP, reaction products with hydrogen siloxanes 183237-29-8DP, reaction products with hydrogen siloxanes
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(chiral smectic liq. cryst. siloxanes)

IT 1119-51-3P, 5-Bromo-1-pentene 2695-47-8P, 6-Bromo-1-hexene 5162-44-7P, 4-Bromo-1-butene 15075-50-0P, 2-(2-Allyloxy)ethoxy ethanol 38261-81-3P 50563-72-9P 51148-67-5P, 10-Undecen-1-yl tosylate **59100-95-7P** 84183-96-0P 84183-97-1P 85394-10-1P 93001-09-3P, 4-Allyloxybiphenyl-4'-carboxylic acid 93001-10-6P, 4-(4-Penten-1-yloxy)biphenyl-4'-carboxylic acid 95880-51-6P 108606-34-4P 116394-41-3P 123598-57-2P, 4-(5-Hexen-1-yloxy)biphenyl-4'-carboxylic acid 144512-97-0P 148357-81-7P 148357-82-8P 148357-83-9P 149969-35-7P 151419-76-0P, 4-(10-Undecen-1-yloxy)biphenyl-4'-carboxylic acid 183237-25-4P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(**chiral** smectic liq. cryst. siloxanes)

IT 98-59-9 103-16-2, Hydroquinone monobenzylether 106-95-6, Allylbromide, reactions 110-52-1, 1,4-Dibromobutane 111-24-0, 1,5-Dibromopentane 111-46-6, Diethylene glycol, reactions 112-43-6, 10-Undecen-1-ol 556-56-9, Allyl iodide 629-03-8, 1,6-Dibromohexane 1565-80-6, (S)-(-)-2-Methylbutanol 1608-26-0, Hexamethyl-phosphorous triamide 58574-03-1, 4-Hydroxybiphenyl-4'-carboxylic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(chiral smectic liq. cryst. siloxanes)

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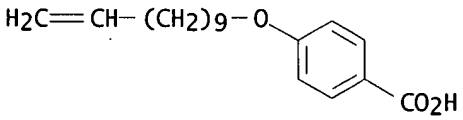
L129 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:683234 HCAPLUS
DOCUMENT NUMBER: 123:199567
TITLE: Synthesis of Ferroelectric Liquid Crystalline Polysiloxanes Having a Chiral n-Alkyl Tolansulfinate as the Pendant Group
AUTHOR(S): Mery, Stephane J.; Nicoud, Jean-Francois; Guillon, Daniel
CORPORATE SOURCE: Groupe des Materiaux Organiques, Institut de Physique et Chimie des Materiaux, Strasbourg, 67037, Fr.
SOURCE: Macromolecules (1995), 28(16), 5440-9
CODEN: MAMOBX; ISSN: 0024-9297
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The synthesis and mesomorphic properties of a series of ferroelec. liq.-cryst. polysiloxanes bearing chiral 4-[(4-((n-alkyloxy)sulfinyl)phenyl)ethynyl]phenyl 4-(undecyloxy)benzoate as mesogenic pendant groups are presented. In these polymers, the chirality is introduced via an asym. sulfur atom. The synthesis of the materials was possible through three successive polymer-analogous reactions. The last key synthetic step is the polyesterification of the poly((undecyloxy)benzoic acid-methylsiloxane) with the n-alkyl 4-[(4-hydroxyphenyl)ethynyl]benzenesulfinate derivs., which could be carried out efficiently. Up to 97% overall substitution rates of the siloxane units by the mesogenic moiety could thus be obtained. The results of the preliminary investigations of the ferroelec. properties, carried out in the SC* phase of one polymer, were also reported. Finally, the comparison of the mesomorphic properties of a sulfinate-based polymer and mol. with their carboxylate-based counterparts is briefly reviewed.

IT **59100-95-7**, 4-(10-Undecenyloxy)benzoic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(in prepn. of alkyl hydroxytolansulfinate and tolancarboxylate for **chiral** ferroelec. liq.-cryst. siloxanes)
RN 59100-95-7 HCAPLUS
CN Benzoic acid, 4-(10-undecenyloxy)- (9CI) (CA INDEX NAME)



CC 35-6 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 75
ST ferroelec liq crystal polysiloxane tolansulfinate
IT Ferroelectric substances
Liquid crystals, polymeric
(tolansulfinate-contg.; prepn. of chiral ferroelec. liq.-cryst. siloxanes)
IT **59100-95-7**, 4-(10-Undecenyloxy)benzoic acid 164986-01-0, n-Octyl 4-[(4-hydroxyphenyl)ethynyl]benzoate
RL: RCT (Reactant); RACT (Reactant or reagent)
(in prepn. of alkyl hydroxytolansulfinate and tolancarboxylate for **chiral** ferroelec. liq.-cryst. siloxanes)
IT 164986-13-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(in prepn. of alkyl hydroxytolansulfinate and tolancarboxylate for chiral ferroelec. liq.-cryst. siloxanes)

IT 106-41-2, 4-Bromophenol 1066-54-2, (Trimethylsilyl)acetylene 6192-52-5, p-Toluenesulfonic acid monohydrate 150508-72-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(in prepn. of alkyl hydroxytolansulfinate for chiral ferroelec. liq.-cryst. siloxanes)

IT 36603-49-3P 119754-16-4P 164986-02-1P 164986-03-2P 164986-04-3P 164986-07-6P 164986-09-8P 164986-10-1P 164986-11-2P 168024-27-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(in prepn. of alkyl hydroxytolansulfinate for chiral ferroelec. liq.-cryst. siloxanes)

IT 164986-14-5P 164986-15-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and characterization of optically active)

IT 9004-73-3DP, Methylsilanediol homopolymer, sru, reaction products with tolansulfinates and tolancarboxylates 49718-23-2DP, Methylsilanediol homopolymer, reaction products with tolansulfinates and tolancarboxylates 164986-01-0DP, reaction products with (undecyloxy)benzoic acid-contg. Me hydrogen siloxanes 164986-09-8DP, reaction products with (undecyloxy)benzoic acid-contg. Me hydrogen siloxanes 164986-10-1DP, reaction products with (undecyloxy)benzoic acid-contg. Me hydrogen siloxanes 164986-12-3DP, reaction products with (undecyloxy)benzoic acid-contg. Me hydrogen siloxanes 164986-16-7DP, reaction products with Me hydrogen siloxanes
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of chiral ferroelec. liq.-cryst. siloxanes)

IT 164986-05-4P 164986-08-7P 164986-12-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(racemate; in prepn. of alkyl hydroxytolansulfinate for chiral ferroelec. liq.-cryst. siloxanes)

IT 164986-11-2DP, reaction products with (undecyloxy)benzoic acid-contg. Me hydrogen siloxanes
RL: SPN (Synthetic preparation); PREP (Preparation)
(racemate; prepn. of chiral ferroelec. liq.-cryst. siloxanes)